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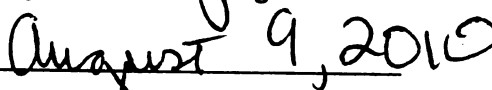
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**EXPLORING THE MOTIVATION AND PERSONALITY TRAITS OF ADVENTURE
TRAVELERS: A HIERARCHICAL MODEL APPROACH**

By

Paige Patrice Schneider

A DISSERTATION

**Submitted to
Michigan State University
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Abstract

EXPLORING THE MOTIVATION AND PERSONALITY TRAITS OF ADVENTURE TRAVELERS: A HIERARCHICAL MODEL APPROACH

By

Paige Patrice Schneider

Over a decade has passed since the Travel Industry Association of America (TIA) investigated the topic of adventure travel experiences. Despite growth in the adventure industry, studies of adventure tourism and its travelers remain scarce. Existing research is descriptive rather than predictive and has failed to identify the psychological underpinnings of consumer behavior related to adventure tourism (Swarbrooke et al., 2003). Drawing on the personality literature found in consumer behavior (Mowen, 2000) and leisure and tourism (Fodness & Murray, 1997; Godbey, 1981; MacKay, Andereck, & Vogt, 2002; Pearce, 2005; Pizam & Sussmann, 1995; Tinsley & Tinsley, 1986) literature, this dissertation seeks to explain the psychological roots of tourism behavior, specifically adventure travel. A multi-method approach was used to develop the survey instrument. Self-administered questionnaires were mailed to a stratified random sample ($N=1000$) of subscribers to National Geographic Adventure magazine ($N=220,847$) and data collected during the fall of 2007. Overall response rate ($n=339$) was 34%. Guttman Scaling Procedure was employed to categorize respondents in soft/hard categories as a context for understating the demographic and travel behavior characteristics of the study sample. Factor analysis was used to identify the underlying dimensions of adventure travel propensity, an enduring disposition to behave, and next a series of hierarchical regressions were performed to explore the relationships among variables.

Results indicated that the model that guided the study, Mowen's (2000) Meta-Theoretic Model of Motivation and Personality (3M Model), was a useful organizing framework. Specifically, the 3M Model offers the advantage of a hierarchical approach to personality in that it identifies the basic elemental and compound traits that account for situational traits and surface level traits providing a means for identifying the more basic compound and elemental traits that act as references for behavior. Results of hierarchical regressions indicated that elemental trait need for arousal and the situational trait interest in cultural experiences were consistent predictors of the surface trait adventure travel propensity. The findings of this study enhance knowledge and understanding of the relationship between personality and tourism behavior, in addition to addressing the many problems that result from research which lacks a theoretically based organizing structure.

Keywords: adventure, consumer behavior, personality, hierarchical, Guttman Scaling

This dissertation is dedicated to my brother Jack P. Viren III.
“Go confidently in the directions of your dreams. Live the life you have imagined”
~Henry David Thoreau

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“I want to do it because I want to do it.” Amelia Earhart

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CHAPTER

INTRODUCTION

Over a decade has passed since the Travel Industry Association of America (TIA) investigated the topic of adventure travel experiences. Results of TIA's *Adventure Travel Report* (1998) indicated one-half of all U.S. adults (50% or 98.0 million) took an adventure vacation trip that included either soft adventure outdoor activities (e.g., camping, canoeing, wildlife viewing) and/or hard adventure outdoor activities (e.g., mountain biking, whitewater rafting, hanggliding). Among the nearly 100 million adults who had not taken an adventure trip in the past five years, one-fourth (28% or 28 million) indicated that they would be very or somewhat likely to do so in the next five years, suggesting additional growth of the adventure market. Although adventure travel has continued to be a growth market, research on the topic has remained stagnant.

Consumer trends such as increased interest in healthy lifestyles and concern for the environment and sustainability are reflected in tourism behavior and in particular, adventure tourism (Swarbrooke, Beard, Leckie, & Pomfret, 2003). Interest in living healthy lifestyles will continue to increase the popularity of and demand for active or activity-focused vacations with an emphasis on environmental sustainability resulting in more travelers seeking adventure travel experiences. In addition, travelers have become more sophisticated and seek out the kinds of activities, cultural experiences, and unique destinations for which adventure travel experiences are known. These changes will have a positive impact on the adventure travel industry, suggesting further expansion.

Despite growth in the adventure industry, studies of adventure tourism and its travelers remain scarce. Existing research is descriptive rather than predictive and has

failed to identify the psychological underpinnings of consumer behavior related to adventure tourism (Swarbrooke et al., 2003). One of the recommendations for future research suggested by the Canadian Tourism Commission (CTC) in their 2003 *Outdoor Enthusiast Survey* was the need for “in-depth psychographic analysis of geographically dispersed Americans by means of larger-scale American studies” (p. 9). Indeed, a number of researchers have noted the importance of examining adventure tourism behavior from a psychological perspective (Brooker, 1983; Cheron & Ritchie, 1982; Jacoby & Kaplan, 1972), expressing the need to establish how factors such as personality characteristics affect behavior. Today, consumers are driving demand (ETC, 2003); therefore understanding the underlying psychological and social dimensions that motivate consumers may offer the tourism industry insight into how to better meet their changing needs.

Adventure travel represents an interesting form of consumer behavior. An understanding of how adventure travelers make their decisions to purchase or use tourism products allows adventure tourism businesses to optimize the effectiveness and efficiency of marketing activities (Horner & Swarbrooke, 2007).

Personality and Tourism

Previous leisure and tourism research has successfully classified tourists based on their behavior (Fodness & Murray, 1999; Godbey, 1981; MacKay, Andereck, & Vogt, 2002; Pearce, 2005; Pizam & Sussmann, 1995; Tinsley & Tinsley, 1986). Similarly, research focused on the adventure tourism market has explored what tourists buy, as well as when and how they buy, but the psychological forces directing these behaviors have

not been adequately addressed (CTC, 2003; Sung, Morrison, & O'Leary, 1997; Sung, 2000; Sung, 2004; TIA, 1998). This study explored the psychological forces that motivate and influence travel-related decisions (Mayo & Jarvis, 1981), which is essential to understanding tourist behavior (Crompton, 1979). Traditional research in marketing has not been particularly successful in finding a link between personality and consumer behavior (Kassarjian, 1971). Part of the problem may be a result of the application of theory developed by clinical psychologists interested in studying maladjusted people. Not surprisingly, research that sought to predict consumer behavior using standard personality inventories has not been successful. Market researchers have attempted for some time to gather evidence that personality traits have an influence on consumer behavior. The evidence is spotty and inconclusive; however, intuition tells us that personality characteristics should normally have an important influence on certain kinds of behavior (Mayo & Jarvis, 1981).

Personality has long been a fringe component in the study of consumer behavior with little research directly devoted to its significance (Kassarjian, 1971). Understanding an individual in his or her role as a consumer should be a key focus in the study of consumer behavior. To realize this vision and evaluate its impact, the scope of personality research should be broadened. Drawing on the personality literature found in consumer behavior (Kassarjian, 1991; McCrae & Costa, 1999; Schaninger, 1976) and the leisure and tourism literature (Gilchrist, 1994; Madrigal, 1995; Plog, 1991; Pomfret, 2006) this dissertation sought to explain the psychological roots of tourism behavior, specifically adventure travel behavior.

Statement of the Problem

The limited research successfully explaining the relationship between personality and tourism behavior was the catalyst for the current study (Cohen, 1972; 1979; Frew & Shaw, 1999; Madrigal, 1995; Nickerson & Ellis, 1991; Plog, 1991; 2002; Smith, 1989). Specifically, the problem focus of the study was to examine the underlying psychological traits that contribute to adventure travel propensity (ATP) by identifying the motivation and personality schemas of adventure travelers. In addition, the usefulness of employing the Meta-Theoretic Model of Motivation and Personality (3M Model) as an organizing structure for understanding how personality traits impact behavior was tested (Mowen, 2000).

The results of the study can be used to enhance knowledge and understanding of the relationship between personality and tourism behavior, providing a more effective means for segmenting the market. Additionally, the results will assist the adventure tourism industry in classifying tourists according to their personality traits giving marketing managers the ability to develop promotional themes linking the personality of their brand to that of the consumer, essentially linking the product characteristics to consumer personality. In a more technical sense, the results allow for communications to be created which tap into the self-schema of the desired target market. The results will clearly contribute to business decisions related to product development, price, and distribution. Finally, the results will address many problems that result from research which lacks a theoretically based organizing structure.

Theoretical Framework

Personality, as expressed in behavior and communication, affects travel and tourism (Fridgen, 1991). Leading tourism research has demonstrated that an individual's personality influences his or her behaviors and experiences. For more than two decades, academics have attempted to explain tourist behavior by developing typologies of tourists and their behaviors (Swarbrooke, 2006). While not developed specific to marketing, these typologies have an application in tourism marketing and thus can contribute to decisions regarding product development, price, and distribution.

Cohen's Tourist Typology

Cohen's tourist typology is quoted in most tourism textbooks. His early studies proposed the idea that all tourists seek some element of novelty and strangeness, while simultaneously wanting to retain some familiarity and security. Cohen (1972) identified four types of tourists: (1) *mass* tourist, (2) *individual mass* tourist, (3) *explorer* and, (4) *drifter*. Groups were further differentiated based on the level of contact with the tourism industry. Mass tourists are classified as institutionalized since they rely heavily upon the tourism industry and desire comfort and safety. While the individual mass tourist, non-institutionalized, prefer to follow their own path and have little contact with the tourism industry. In 1979, Cohen amended his typology and defined two groups of tourists - those who search for pleasure and those who undertake a modern pilgrimage. He suggested a five-group classification of tourists based on the type of experience they were seeking: (1) the *recreational* tourist, for whom the emphasis is on physical recreation; (2) *divisionary* tourist, who seeks ways of forgetting their everyday life at home; (3) the *experiential* tourist, who looks for authentic experiences; (4) the *experimental* tourist,

whose main desire is to be in contact with local people; (5) the *existential* tourist, who wants to become totally immersed in the culture and lifestyles of the vacation destination.

Smith's Tourist Typology

Another tourist personality typology often found in the tourism literature was developed by anthropologist Valene Smith (1989). Primarily interested in host-guest relationships and impact studies, Smith grouped tourists according to their wish to adapt themselves to local norms. She identified seven categories of tourist ranging from *explorers* who have a quest for discovery and a desire to interact with the hosts, to *charter* tourists who search for relaxation and good times. The other five tourist categories in Smith's model are: elite, off-beat, unusual, incipient, and mass.

Plog's Tourist Typology

In an effort to directly link personality traits with tourist behavior, Plog (1977) divided people into psychocentrics and allocentrics. He argued that psychocentrics were less adventurous, inward-looking people who tend to prefer the familiar and have a preference for resorts which are already popular. In contrast, allocentrics are outward-looking people who like to take risks and seem to seek more adventurous vacations. Plog believed such people would prefer exotic destinations and individual vs. group travel. Plog suggested a number of intermediate categories between these two extremes, such as near-psychocentrics, mid-centrics, and near-allocentrics. He suggested psychocentric American tourists would vacation at Coney Island while allocentrics would take their vacation in Africa, for example.

Holland's Personality Typology

Researchers have also attempted to apply personality theories and typologies from various disciplines to try and explain and predict tourist behavior. Holland (1985) developed a theory of personality types as a way to use them to guide education and vocational planning. He defined an individual's personality type in terms of characteristic activities, interests, and competences. Holland's typology consists of six different personal orientations to life: (1) *realistic*, (2) *investigative*, (3) *artistic*, (4) *social*, (5) *enterprising*, and (6) *conventional*. Frew and Shaw (1999) employed Holland's theory of personality types to explore the relationship between personality and tourism behavior. They found support for the association between Holland's personality types and the likelihood to visit certain types of tourist attractions.

A number of approaches can be taken to categorize adventure tourism. Adventure tourism is a broad concept and involves a range of products and people, thus a number of typologies of adventure tourism have been developed. Three adventure tourism typologies are introduced below.

Adventure and Independence Typology

Addison (1999) produced the adventure and independence typology. He developed a matrix of challenge and independence, a grid with two axes. On one axis is the level of adventure as determined by elements of danger and skills needed, which can be interpreted as the degree of challenge involved. The other axis is based on the level of independence or the degree to which participants rely on others to organize the experience for them. Each axis is a continuum, going from low to high.

Hard and Soft Adventure Typology

These oft-used terms have been developed by researchers who devised a continuum to explain the diversity of behavior, beginning with mild adventure (termed “soft adventure”) at one end of the scale and progressing to ‘hard adventure’ at the other extreme (Swarbrooke et al., 2003). This continuum, involves differing degrees of challenge, uncertainty, setting, familiarity, personal abilities, intensity, duration and perceptions of control (Lipscombe, 1995).

Destination and Activity Driven Typology

Millington, Locke, and Locke (2001) proposed a typology that divides the adventure tourism market between adventure travel that is *destination* driven and that which is *activity* driven. Each of these basic divisions is then subdivided once more. In destination-driven adventure travel the *destination* is the most important aspect of the trip, the traveler being interested in the landscape and scenery, the ecosystems, the people or the history of the place. The location will often be somewhere unusual, remote or exotic, providing novelty, stimulation, discovery and challenge for the traveler. In activity-driven travel, it is the *activity* rather than the destination that is crucial. The destination could be a remote or wilderness area if the activity demands it, but could just as easily be near home or abroad. As the choice of terms suggests, the division used by Millington et al. (2001) is based on a tourist’s drive and motivation.

The attempts to classify tourists discussed, and others, have attracted criticism. The tourist personality typologies generated by Cohen and Smith have been descriptive rather than quantitative and predictive. Furthermore, they were primarily related to tourism development and impacts of tourism on the destination instead of the

psychological forces that motivate and influence various travel-related decisions. Although Plog focused on psychological forces that motivate and influence various travel-related decisions, the validity and reliability of Plog's scale has been questioned (Madrigal, 1995, Plog, 1991; 2002; Smith, 1990a; 1990b), and, while there was some utility in Holland's approach to personality typing, the relationship between occupations, the original focus of Holland's work, and tourism behavior have yet to be fully investigated. Finally, the product-based typologies of adventure tourism appear to fall short as well. Consumers and suppliers do not always confine themselves to one category, which further complicates creating a typology of adventure tourism. Crossover is common. For instance, TIA (1998) found a substantial sector of respondents had participated in *both* hard and soft adventure in five years leading up to 1997. As suggested by Swarbrooke et al. (2003) adventure tourism typologies based on psychographic segmentation of consumers would be of great utility to the tourism industry and further research in this area is necessary.

Despite the fundamental importance of the study of motivation and personality, finding a holistic view of the topic in consumer behavior or psychology is difficult. The current study utilized an integrated model of motivation and personality to address the issues outlined above. Mowen's (2000) Meta-Theoretic Model of Motivation and Personality provided an organizational structure for understanding how personality traits impact behavior.

Meta-Theoretic Model of Motivation and Personality

The current research employed The Meta-Theoretic Model of Motivation and Personality (3M Model) as the organizational structure for understanding how personality

traits impact behavior. Four theoretical approaches were combined to develop the 3M Model: (1) control theory, (2) hierarchical models of personality, (3) evolutionary psychology, and (4) trait theories of personality. The work in evolutionary psychology and trait theory provides a set of personality traits. Hierarchical models of personality supply the basis for the idea that traits diverge in terms of abstractness, while control theory provides a framework that describes how the hierarchical arrangement of traits results in goals, emotions, and ultimately behavior.

The 3M Model “integrates diverse psychological theories and consumer behavior constructs into a coherent general theory of motivation and personality that more parsimoniously explains a broad set of phenomena” (Mowen, 2000, p. 6). The primary goal of employing an integrated model of motivation and personality is to overcome the problems of dealing with a multitude of disconnected constructs in consumer behavior.

As a general theory of motivation and personality, the 3M Model can be applied across domains – from consumer behavior, to services marketing, to organizational behavior (Licata, Mowen, Harris, & Brown, 2003). The 3M Model proposes that enduring dispositions to respond (e.g., traits) can be arranged into four levels based on their level of abstraction.

Elemental traits reside at the most abstract level of the hierarchy. Mowen (2000) used a physical chemistry metaphor to identify eight elemental traits, which are defined as cross-situational, enduring dispositions to respond that result from genetics and the early learning history of the individual. Compound traits reside at the next level in the hierarchy. Similar to elemental traits, they are cross-situational in nature. Compound traits are defined as enduring dispositions that result from the effects of subsets of

elemental traits as well as from cultural and sub-cultural influences. The third type of constructs in the 3M Model are the situational traits. Situational traits are defined as enduring dispositions to behave within a general situational context. They are influenced by the pressures of the situational environment and by the effects of the elemental and compound traits. Finally, surface traits are the most concrete traits identified in the 3M Model. These constructs represent highly specific, enduring dispositions to behave that result from the effects of elemental, compound, and situational traits as well as from the pressure of the context-specific environment. Surface traits occur in narrow contexts that fall within the more general context of the situational traits (Mowen, 2000).

The 3M Model provided the means for inserting into a control theory based nomological network a limited set of mid-range trait theories that provide the elemental, compound, situational, and category specific surface traits proposed to underlie consumer behavior. Thus, control theory not only provided the structure within which the traits were arranged, but also identified how these traits influence behavior.

Research Questions and Hypotheses

Building on existing tourist personality research and utilizing an integrated approach to motivation and personality, the 3M Model, the following research questions were formulated:

- (1) Does a motivation-personality system of traits predictive of adventure traveler propensity (ATP) exist?
- (2) Does a motivation-personality system of traits predictive of soft ATP exist?
- (3) Does a motivation-personality system of traits predictive of hard ATP exist?
- (4) What are the trait antecedents of soft ATP?

- (5) What are the trait antecedents of hard ATP?
- (6) Does the 3M Model of motivation and personality provide a useful framework for examining tourist behavior?

The study was designed to determine the motivation-personality systems of adventure travelers. A number of traits were proposed to be associated with the surface trait ATP and rationale for each hypothesis is provided in the literature review. The proposed trait antecedents of ATP were: the elemental traits need for arousal and agreeability (Licata et al., 2003), the compound traits competitiveness (Mowen, 2000), altruism (Mowen & Sujan, 2005), and need for learning (Mowen, 2000), and the situational traits interest in cultural experiences (Mowen & Carlson, 2003), need for uniqueness (Tian, Bearden, & Hunter, 2001), and fashion leadership (Goldsmith, Freiden & Kilsheimer, 1993). The following hypotheses were proposed:

H^1 : The elemental trait *need for arousal* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^2 : The elemental trait *agreeability* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^3 : The compound trait *competitiveness* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^4 : The compound trait *altruism* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^5 : The compound trait *need for learning* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^6 : The situational trait *interest in cultural experiences* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^7 : The situational trait *need for uniqueness* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^8 : The situational trait *fashion leadership* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

Delimitations

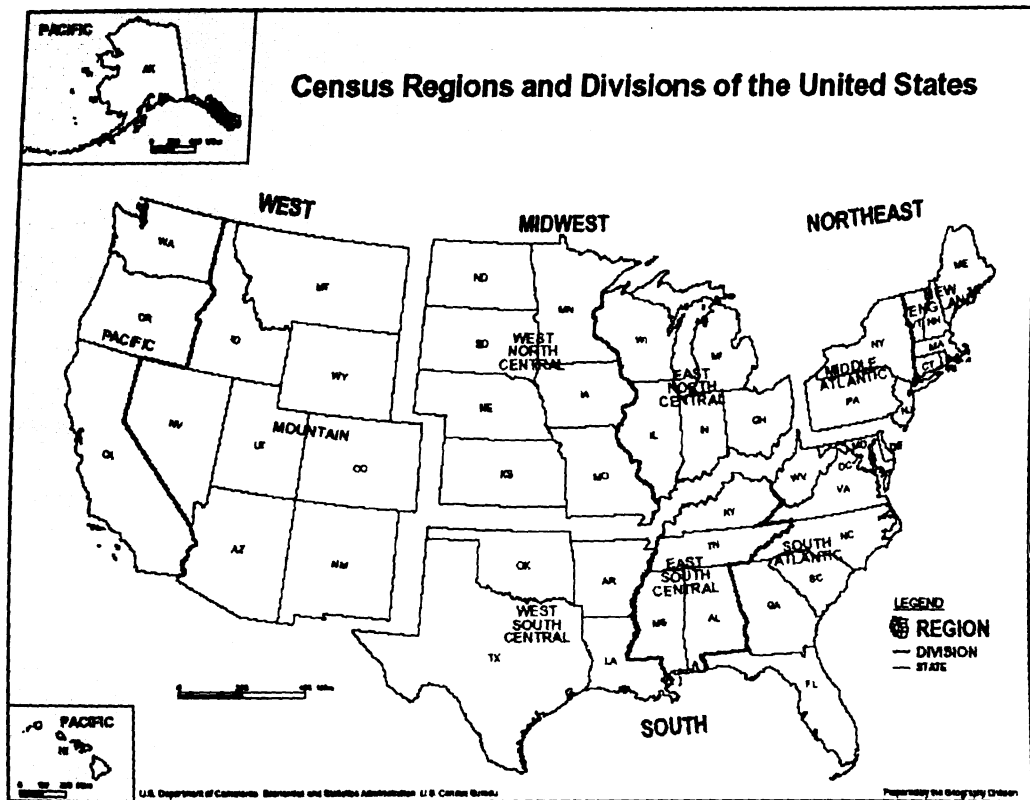
This study was delimited to a number of factors as shown below:

- (1) Budget considerations and issues related to return postage for international mail logistics delimited the sample to individuals 18 years of age and older living in households located in the 48 contiguous United States, following the U.S. Census Regions and Divisions of the United States (Figure 1).

- (2) Individuals at the household level who are current paid subscribers to *National Geographic Adventure* magazine having maintained a subscription for a minimum of two consecutive years.
- (3) Overall adventure travel behaviors including past and future adventure travel experience to gain an understanding of behavior over a lifetime versus a single adventure travel vacation experience.
- (4) Data were collected fall of 2007 and represent consumers during that time period.
- (5) Excluded were individuals who obtained *National Geographic Adventure* magazine via: (1) a retail outlet (e.g., bookstore, grocery store), (2) a library subscription, or (3) an office (e.g., doctors office waiting rooms, businesses).
- (6) Excluded were adventure travelers who do not purchase *National Geographic Adventure* magazine.
- (7) Excluded were individuals or professionals who are focused on a competitive aspect of sport that form the adventure activity milieu such as mountaineering, sport climbing or stunt surfing, who are sponsored to develop their techniques and prowess as part of an ultimate goal of promoting the sport and equipment, unless they are subscribers of *National Geographic Adventure* magazine.

Figure 1

U.S. Census Regions and Divisions of the United States



Limitations

This study was limited by the following:

- (1) Travel behaviors of only those individuals who subscribe to *National Geographic Adventure* magazine, excluding those adventure travelers who do not subscribe.
- (2) Participants who may underestimate or overestimate how much travel experience they have gained or how much travel experience they plan, or have intentions to take in the future.

- (3) Respondent's ability to use Likert scales and semantic differential scales correctly.
- (4) Reliability and validity of scales borrowed from the consumer behavior literature, to the extent that they were a good representation of tourism consumer behavior.

Definitions

For the purpose of this study, it is important to provide clear and specific definitions of the terms used in the study. The following terms are defined to clarify their use:

Adventure travel: Any tourist activity including two of the following three components: a physical activity, a cultural exchange or interaction, and engagement with nature (ATTA, 2008; Schneider & Vogt, 2005).

ATP: "The selection of an activity that takes place in an unusual, exotic, remote, or wilderness destination and tends to be associated with high levels of involvement and activity by the participants, most of it outdoors" (Tran & Ralston, 2006, p. 429).

Soft adventure: Activities with a perceived risk but low levels of real risk, requiring minimal commitment and beginning skills; often led by experienced guides (Hill, 1995).

Hard adventure: Activities with high levels of risk, requiring intense commitment and advanced skills (Hill, 1995).

Motivation: A general term for all processes involved in starting, directing, and maintaining physical and psychological activities (Gerrig & Zimbardo, 2002).

Need for uniqueness: The pursuit of differentness relative to others through acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's self image and social image (Snyder & Fromkin, 1980; Tian et al., 2001).

Tourist motivation: The global integrating network of biological and cultural forces which gives value and direction to travel choices, behavior and experience (Goeldner & Ritchie, 2009; Pearce, 2005).

Tourist preference: The act of selecting from among a set of choices as influenced by one's motivations (Tran & Ralston, 2006).

Traits

Elemental traits: The unidimensional underlying predispositions of individuals that arise from genetics and early learning history that represent the broadest reference for performing programs of behavior (Mowen, 2000).

Compound traits: The unidimensional predispositions that result from the effects of multiple elemental traits, a person's learning history and culture which provides a second reference point for how to run programs of behavior (Mowen, 2000).

Situational traits: The unidimensional predispositions to behave within a general situational context that result from the joint effects of elemental traits, compound traits, and the situational context (Mowen, 2000).

Surface traits: The delineation of the programs of behavior that individuals run to complete tasks that occur as a result of a person, situation or product category interactions (Mowen, 2000).

Organization of the Study

Beyond the introduction section of this dissertation, four additional chapters will examine motivation and personality within a tourism context. Chapter II contains the literature review, which will first describe current consumer behavior research related to personality and behavior. Next, personality research found in the leisure and tourism literature will be discussed, followed by a presentation of the theoretical framework employed to determine if personality and motivation are predictors of adventure travel behavior. The methodology section, or Chapter III, describes the procedures used to gather data and to test relationships which test the theoretical framework. After data collection, Chapter IV will present the findings and describe the results of the data collection and testing of the hypotheses and the model. Finally, Chapter V will evaluate the findings and draw conclusions concerning the role of personality and motivation in consumer behavior related to adventure tourism and recommendations will be made for future research in this area.

CHAPTER II

LITERATURE REVIEW

The problem selected for this study was to investigate the relationship between personality and tourism behavior, specifically adventure travel behavior. To accomplish this, the literature related to personality and consumer behavior in a leisure and tourism context is reviewed. This review of literature is organized around the following sections: (1) adventure tourism, (2) personality, (3), the theoretical framework employed to identify the motivation and personality systems of individuals, the 3M Model of motivation and personality, and (4) hypotheses development.

This chapter provides the background and theoretical information needed to understand personality and consumer behavior in a tourism context. It reviews the most important research and methods that have been conducted in this area and establishes this study as one link in a chain of research that advances knowledge in the field of consumer behavior and leisure and tourism.

Adventure Tourism

Historically characterized by activities, the term adventure travel is often associated with high levels of physical activity by participants, most of it outdoors. The Adventure Travel Trade Association (<http://www.adventuretravel.biz/>) offers a broad definition of adventure, identifying the diversity of interests among adventure travelers: any tourist activity including two of the following three components: a physical activity, a cultural exchange or interaction, and engagement with nature (Schneider & Vogt, 2005).

As noted in the introduction, tourism researchers have demonstrated that an individual's personality influences his or her behaviors and experiences. Tourist preference is the act of choosing from a set of choices as influenced by a person's motivations. As such, adventure travel preference, or propensity, is defined as the selection of "an activity in an unusual, exotic, remote, or wilderness destination and tends to be associated with high levels of involvement and activity by the participants, most of it outdoors" (Tran & Ralston, 2006, p. 428). Tourists with a propensity for adventure would like to visit unusual and exotic destinations, gain new experiences, interact with local culture, engage with nature, and challenge their physical and mental skills.

Adventure travel represents an interesting form of consumer behavior that has seen tremendous growth as a segment of the tourism industry (Sung, Morrison, & O'Leary, 1997). The transformations taking place include an interest in healthier lifestyles, greater concern for environmental sustainability, and preference for authenticity in many aspects of their lives (Swarbrooke et al., 2003). Drawing from many varying consumer cohorts, travelers are becoming aware of the importance of environmental sustainability, cultural authenticity, and preservation as part of their overall travel experience. This awareness is reflected in their travel behavior, with more taking interest in adventure travel. As travelers become more sophisticated and knowledgeable, they find themselves driven to seek out the kinds of activities, cultural experiences, and unusual destinations for which adventure travel experiences are known. As a result, the adventure tourism industry is positioned well for continued growth.

Despite growth of the adventure industry, studies focused on adventure tourism and adventure travelers remain scarce. Those studies conducted have been descriptive

rather than predictive and are based on outdoor recreation concepts and theories. The current state of the literature fails to expand or increase understanding of the diverse nature of adventure tourism and adventure travelers.

The descriptive research has been geared toward defining adventure tourism (Hall & Weiler, 1992; Muller & Clever, 2000; Sung, Morrison & O'Leary, 1997; TIA, 1998; Walle, 1997; Weber, 2001), describing adventure traveler characteristics (CTC, 2003; Lipscombe, 1995; Millington et al., 2001; Muller & Cleaver, 2000; OIA, 2007; Sung, 2004; Sung et al., 1997; TIA, 1998) and activity interests and preferences (CTC, 2003; Lipscombe, 1995; Millington et al., 2001; OIA, 2007; Sung, 2004; Sung, et al., 2000; TIA, 1998; Walle, 1997; Weber, 2001).

Studies stemming from traditional outdoor recreation focus primarily on risk (Ewert, 1989; Meier, 1978; Miles, 1978; Yerkes, 1985). The study of risk has been prevalent in both the recreation and tourism literature. An example of risk theory that has been used to explain adventure recreation and travel behavior is Zuckerman's sensation seeking scale. Perhaps the foremost authority on risk-taking behavior, Zuckerman (1979) researched risk in humans centered on sensation seeking as the presumed or general trait underlying play and novelty seeking. He defined the sensation seeking concept as, "the seeking of varied, novel, complex and intense sensations and experiences and the willingness to take physical, social, legal and financial risks for the sake of such experiences" (p. 13). Zuckerman hypothesized that the principle motive for seeking new and sometimes risky experiences was a need for sensory stimulation.

In the outdoor recreation literature sensation seeking has been found to be positively related to individual behaviors including participation in high-risk natural area

activities such as mountaineering, spelunking, rock climbing, and ski jumping (Breivik, 1996; Cronin, 1991; Levenson, 1990; Rossi & Cereatti, 1993). The concept has also been applied successfully in tourism studies, while sensation seeking has been applied in research on innovative vacations and adventure travel (Gilchrist, Povey, Dickinson, & Povey, 1995; Wahlers & Etzel, 1985).

While the aforementioned work provides insight into why individuals participate in adventure travel, it neglects to consider the network of personality traits that play a role in behavior. Making the assumption that adventure travel behavior is motivated only by risk, prevents more general models of adventure tourism and their marketing implications from being explored (Walle, 2002).

It is clear that the subject of consumer behavior in adventure tourism has not been fully explored (Swarbrooke et al., 2003). In an age where traditional demographics no longer adequately predict behavior, establishing how factors such as personality characteristics, and previous experience affect adventure travel behavior, is needed (Weber, 2001). A number of researchers have noted the importance of examining adventure tourism behavior from a psychological perspective (Brooker 1983; Cheron & Ritchie, 1982; Jacoby & Kaplan, 1972). Recognizing the underlying psychological and social dimensions that motivate consumers may offer insight to these experiences that can benefit the adventure industry as well as address a gap in the literature.

Personality

What makes a person an adventure traveler? One answer may lie in the concept of personality, which refers to a person's unique psychological makeup and how it consistently influences the way a person responds to his or her environment (McCrae &

Costa, 2003). In consumer behavior research, personality is one of the more engrossing concepts. “Purchasing behavior, media choice, innovation, segmentation, fear, social influence, product choice, opinion leadership, risk taking, attitude change, and almost anything else one can think of, have been linked to personality” (Kassarjian, 1971, p. 409).

A variety of approaches to the study of personality can be found in the psychology literature. Major perspectives of personality theories with the author noted in parenthesis include: trait and dispositional (Allport, Murray, Cattell, Eysenck, Costa and McCrae), biological and evolutionary (Darwin), psychoanalytic and neoanalytic (Adler, Erickson, Freud, Fromm, Horney, and Jung), behavioral and learning (Rotter and Skinner), phenomenological (Maslow, Rogers, and Wundt) and cognitive (Bandura and Kelly). The theoretical orientation of the researcher determines the definition of personality used. The present study employs a trait theory approach to personality, hence personality was defined as “the hierarchically related set of intra-psychic constructs that reveal consistency across time that combine with situations to influence the feelings, thought, intentions, and behavior of individuals” (Mowen, 2000, p. 2).

Trait theory is an approach for analyzing the structure of personality by measuring, identifying, and classifying similarities and differences in personality characteristics or traits. A trait is a relatively stable and enduring tendency to behave in a particular way over a wide range of situations (Plotnik, 2002). Essentially the trait approach attempts to synthesize and formalize personality traits in order to explain and predict behavior – in the present case, tourist behavior.

Personality and Leisure Behavior

Leading research in leisure has demonstrated that an individual's personality influences his or her behaviors and experiences in a leisure setting (Csikszentmihályi, 1975; Ellis, 1973; Hills & Argyle, 1998; Holland, 1958a; 1985b; Kelly, 1978; Mannell, 1999; Martin & Priest, 1986). A number of different explanations for leisure and recreation behavior have been proposed. For example, two approaches were developed by Csikszentmihályi (1975) and Martin and Priest (1986).

Csikszentmihályi (1975) developed flow theory to explain leisure and recreation behavior. The concept of flow has been widely accepted as an explanation of leisure and recreation behavior. Flow theory suggests people are motivated to participate because of intrinsic feelings of enjoyment, well-being, and personal competence to achieve. People enter a flow state when they are so absorbed in an activity that they lose their sense of time and have feelings of great satisfaction. Csikszentmihályi identified the following as accompanying an experience of flow: (1) *clear goals* – expectations and rules are discernible and goals are attainable and align appropriately with one's skill set and abilities, (2) *concentration and focus* – a high degree of concentration on a limited field of attention, (3) *loss of the feeling of self-consciousness* – the merging of action and awareness, (4) *distorted sense of time* – one's subjective experience of time is altered, (5) *feedback* – direct and immediate successes and failures in the course of the activity are apparent (6) *balance between ability level and challenge* – the activity is neither too easy nor too difficult, (7) *control* – a sense of personal power over the situation or activity, (8) *intrinsic rewards* – the activity is effortlessness of action, and (9) *action awareness merge* – people become absorbed in their activity and focus of awareness is narrowed to the

activity itself. It should be noted that not all elements need to be present to experience flow.

Another approach developed to explain leisure and recreation behavior was the adventure experience paradigm. The adventure experience paradigm explains behaviors using the variables of risk and competence (Martin & Priest, 1986). Drawing on previous research (Csíkszentmihályi, 1975; Ellis, 1973; Mortlock, 1984) the model is based on two theoretical dimensions, personal skill level and situational challenge. These are viewed as interacting to create the psychological experience of five distinct states of increasing degrees of arousal: (1) *exploration and experimentation*, (2) *adventure*, (3) *peak adventure*, (4) *misadventure*, and (5) *devastation and disaster*. For the individual, the goal of an outdoor adventure experience is to reach peak adventure, since this is the realm that provides flow and the most positive benefits of adventure experiences. The key lies in the perception of the individual. Thus, when individuals misperceive both the real risk and their actual competence, they can overshoot or fall short of the goal of peak adventure.

Nine types of individuals are identified in Martin and Priest's (1986) adventure experience paradigm: (1) *fearless and arrogant*, (2) *bold*, (3) *naïve and innocent*, (4) *assured*, (5) *astute*, (6) *insecure*, (7) *carefree and exaggerated*, (8) *overawed*, and (9) *timid and fearful*. To illustrate, two examples are provided. The astute individual correctly perceives the level of risk and competence to perform the activity thus possesses a high probability of experiencing peak adventure. In contrast, the timid and fearful individual misperceives adventure by overestimating the risk of the activity, and

underestimating his or her competence to perform it, thus falling short of the goal of peak adventure (Priest & Gass, 2005).

Collectively, these studies support the contention that leisure and recreation behavior can be viewed as a reflection of the individual's personality. Consistent with the trait theory approach of the current study, research relating personality and leisure behavior has relied primarily on trait theory in order to explain and predict leisure behavior (Barnett, 2006; Driver & Knopf, 1977; Hills & Argyle, 1998; Lawton, 1994; Tinsley, Hinson, Tinsley, & Holt, 1993). However, a number of shortcomings have been noted where personality is used as a predictor of leisure behavior. Mannell (1984) argued that most research has used general personality inventories to measure individual differences. He noted that the interaction of personality variables in a situational context is important and suggested that researchers conceptualize personality dimensions that are relevant to leisure. Additionally, Iso-Ahola (1980) pointed out that the majority of studies related to personality and leisure have lacked sound theory and measurement has been inconsistent. These shortcomings may be the reason most research has failed to show a robust relationship between leisure behavior and personality (Nias, 1985).

Personality and Tourism Behavior

For more than two decades academics have sought to produce meaningful typologies of tourists and their behavior (Dalen, 1989; Perreault, Dorden, & Dorden, 1979; Westvlaams, Ekonomisch, & Studiebureau, 1986; Wickens, 2002). Some of the more well-known tourist typologies are those that were developed by Cohen (1972; 1979), Smith (1977; 1989), and Plog (1974). In addition, because adventure is a broad concept involving a wide range of products and people, a number of typologies have been

proposed to categorize adventure tourists (Addison, 1999; Lipscombe, 1995; Millington et al., 2001; TIA, 1998).

Most tourism typologies attempt to group tourists on the basis of their preference for particular vacation experiences in terms of destinations, activities while on vacation, and independent travel versus package vacations. Tourist typologies can be grouped into two general categories: interactional and cognitive-normative. Interactional typologies emphasize the way visitors interact with destination areas while cognitive-normative models highlight the motivation behind travel (Murphy, 1985). To illustrate, the tourist typologies proposed by Cohen and Smith are considered interactional typologies because of their focus on the relationships between tourists and their destinations. In contrast, cognitive-normative tourist typologies focus on travel motivations of tourists. Plog's (1972) model is considered a cognitive-normative typology because it is based on asking tourists about their general lifestyles or value systems. This psychographic research is then used to examine tourist motivations, as well as attitudes regarding destinations and modes of travel (Plog, 1987).

In his typology, Cohen (1972) identified four types of tourists: (1) the *organized mass* tourist who buys a package vacation to a popular destination and largely prefers to travel around with a large group of other tourists, following an inflexible predetermined itinerary. In general such tourists tend not to stray far from the beach or their hotel; (2) the *individual mass* tourist buys a flexible package that allows more freedom, for example, a fly-drive vacation. Individual mass tourists are more likely, than the organized mass tourists, to look for the occasional novel experience. However, they still tend to stay on the beaten track and rely on the formal tourist industry; (3) the *explorer* makes his or

her own travel arrangements and sets out, consciously, to avoid contact with other tourists. Explorers set out to meet local people but they will expect a certain level of comfort and security; and, (4) the *drifter* tries to become accepted as part of the local community. Drifters have no planned itinerary and choose destinations and accommodations on a whim. As far as possible, drifters shun all contact with the formal tourism industry. Cohen further differentiated groups based on their level of contact with the tourism industry, describing the former two types of tourist as *institutionalized* tourists, and the latter two as *non-institutionalized*. In 1979, Cohen amended his typology and defined two additional groups of tourists, those who search for pleasure and those who undertake a modern pilgrimage. Pleasure-seeking tourists include the *recreational* tourist, who simply desires entertainment and relaxation as well as the *diversionary* tourist, who wishes to escape the routine of everyday life. The modern pilgrimage tourists encompass three different typologies: the *experiential* tourist who seeks an authentic experience but does not totally identify with the foreign culture, the *experimental* tourist who wishes to seek an alternative lifestyle but does not become totally immersed in a foreign culture, and the *existential* tourist who becomes totally immersed in the foreign culture.

Sharpley (1994) criticized Cohen's typology on the grounds that the institutionalized and non-institutionalized types are not entirely distinct from each other because even *explorers* make use of specialist guidebooks to choose their transport routes and accommodation. He also noted that Cohen's classification was not based on empirical research.

Smith (1989) proposed a typology based on a combination of the number of tourists and their adaptation to social norms. She identified seven categories of tourists ranging from *explorers* who have a quest for discovery and a desire to interact with the hosts to *charter* tourists who have little or no interest in the destination itself providing that the vacation gives them the entertainment and standards of food and accommodation they experience. The other five tourist categories in Smith's model are: the *elite tourist* who is an experienced frequent traveler who likes expensive tailor-made tours; the *off-beat* tourist aims to get away from other tourists; the *unusual* tourist makes side trips from organized tours to experience local culture; the *incipient* mass tourist travels to established destinations where tourism is not yet totally dominant; and the *mass* tourist expects the same things they use at home.

As in the case of Cohen, Smith's typology centers around tourism development and its impacts on destinations. Both typologies are descriptive rather than quantitative and predictive, and as such, do not increase one's understanding of tourist behavior.

In contrast to Cohen and Smith's focus on tourism development and impacts, Plog's examined the psychological forces that motivate and influence tourist behavior. In the 1960's, Plog was asked by the airline industry to investigate why some travelers were unwilling to fly and what could be done to encourage them to try air travel (Litvin, 2006). Plog's (1972) primary goal was to develop a typology of travelers that could be used to predict travel patterns and develop better ways of marketing to these various personality types. Through in-depth personality research among different types of leisure travelers, Plog (1972) developed a personality measure specific to tourist behavior. Supporting the trait approach to personality, he developed a scale of personality traits which included

three tourist personality types: psychocentrics, mid-centrics, and allocentrics. Each tourist type is located on a continuum similar to a bell-curve with psychocentrics at one end of the continuum and allocentrics at the other end. Psychocentrics are characterized as anxious, somewhat inhibited, non-adventuresome, inner-focused and primarily in lower income levels. While in contrast, allocentrics are characterized as adventurous, self-confident, curious, outgoing and having higher income levels. In the middle of the continuum, making up the largest number of tourists, are the mid-centrics who travel for relaxation and pleasure, or the need for a change.

In 1995, Plog modified his model of destination preferences. According to Plog's findings, dependables prefer a life that is structured, stable, and predictable. These individuals follow a set pattern or routine in order to be able to plan their lives. Venturers tend to go more places more often. Leisure plays a central role in their lives, and they early seek out new, exotic and/or unknown places.

A number of tourist behavior studies have been based on Plog's model (Hoxter & Lester, 1998; Madrigal, 1995; Nickerson & Ellis, 1991; Smith, Williams, Ellis & Daniels, 1986), however, results have been inconclusive. Only partial support for the model was found by Madrigal (1995), Nickerson and Ellis (1991), and Williams, Ellis, and Daniels (1986). Results of a study conducted by Hoxter and Lester (1988) were in complete contrast to Plog. Most notably was the public debate between Smith and Plog. Smith (1990a) concluded that the allocentric-psychocentric model failed to support the hypothesized association between personality types and destination preferences. Despite its widespread application in the private sector, Smith argued that the psychometric properties of Plog's scale have not yet been subjected to rigorous examination in the

academic literature because of the proprietary nature of the scale. In addition, Smith (1990b) suggested that rather than concentrate on the relationship between personality types and destination, research should focus on the possible link between personality type and travel styles (i.e., how people choose to travel).

A great deal of debate has taken place regarding the validity and reliability of Plog's scale (Madrigal, 1995; Plog, 1990; 2002; Smith, 1990a; 1990b). Regardless of the debate surrounding Plog's model, his work related to the allocentrism-psychocentrism continuum has received a great deal of attention in academic literature and tourism textbooks (Gee, Makens, & Choy, 1989; Goeldner & Ritchie, 2003; Gunn, 1994), suggesting that a suitable alternative for exploring personality as a predictor of adventure travel behavior has yet to be proposed.

Tourism researchers have also attempted to apply personality typologies from other disciplines to explain tourism behavior. One example is Holland's (1985) personality typology. Developed as a way to identify personality type to guide education and vocational planning, Holland (1985) defined an individual's personality type in terms of characteristic activities, interests, and competences. Holland's typology consists of six different personal orientations to life: (1) *realistic*, (2) *investigative*, (3) *artistic*, (4) *social*, (5) *enterprising*, and (6) *conventional*. He suggested that a person's personality pattern also determines their choice of nonvocational activities and recreation.

Melamed (1995) utilized Holland's theory to relate work to leisure behavior. To test the relationship between personality pattern and avocational (i.e., an activity taken up in addition to one's regular work or profession, usually for enjoyment; a hobby) choices, Melamed compared the individual's vocational personality pattern with the leisure

activities they most enjoy. A high degree of similarity, or congruence, between group personality patterns and group leisure patterns was revealed. In an effort to explain tourist behavior Frew and Shaw (1999) employed Holland's personality types. They found some support for the association between Holland's personality types and tourist behavior. However, it was concluded that, although there was some utility in the Holland approach to personality typing, the relationship between occupations (the original Holland focus) and tourism behavior have yet to be fully investigated.

Addison (1999) proposed the adventure and independence typology. He created a matrix of challenge and independence. He created a grid based on two axes. On one axis is the level of adventure, determined by the danger element and skills needed, and thus is interpreted as the degree of challenge. The other axis is based on the level of independence or the degree to which participants rely on others to organize the experience for them (this is particularly relevant and pertinent for the tourism industry as it reflects the degree to which tourists are reliant on suppliers to organize and manage the experience). Each axis is a continuum, going from low to high.

A popular typology used by both the tourism industry and academics to describe the diversity of adventure experiences offered is the hard/soft adventure continuum (Muller & Cleaver, 2000; OIA, 2007; Pomfret, 2004; Scott & Mowen, 2007; Sung et al., 2000; TIA, 1998). According to Lipscombe (1995), this continuum involves differing degrees of challenge, uncertainty, setting, familiarity, personal abilities, intensity, duration and perceptions of control. Millington et al. (2001) offered a simpler way to differentiate between hard and soft adventure. Hard adventure requires some experience

and proficiency in the activity prior to the tourism experience, whereas soft adventure does not necessarily require any previous experience.

Based on this continuum, individual travel behavior may evolve over time from participating initially in mass recreation and travel activities to a higher level, participating in soft adventure recreation and travel activities, which may then be followed by progressing to an even higher level at the top of the hierarchy, participating in hard adventure recreation and travel activities.

As with any tourist typology, the adventure traveler does not fit into a specific set of personality characteristics, and all adventure travelers do not share the same tastes or competencies in adventure activities (Swarbrooke et al., 2003). According to Hill (1995), soft adventure travelers usually take part in activities with a *perceived* risk even though the low levels of real risk only require minimal commitment and beginning skills. In addition, soft adventure travelers are usually novices to the realm of adventure and enjoy safe activities which require little or no previous experience (e.g., bird watching in Costa Rica; bicycling in the South of France; or going on a commercially organized hiking trip to Machu Picchu).

Research suggests that soft adventurers are motivated by self-discovery, the need to escape from the routine of urban life and experience a new environment with the potential for excitement, novelty, and the opportunity to socialize in a controlled environment (Ewert, 1987; Lipscombe, 1995). In some sense, key differences can be drawn between the soft adventurer traveler and the mass tourist, with the key difference being that the former type sporadically partakes in adventurous activities while the latter does not (Cloke & Perkins, 1998).

In contrast to soft adventurers, hard adventurers “thrive when exposed to activities with high levels of risk, requiring intense commitment and advanced skills” (Hill, 1995, p. 63). These tourists are more likely to engage in physically as well as mentally challenging outdoor activities, demanding both previous experience and high levels of competence. According to Lipscombe (1995), hard adventure travelers thrive on the elements of challenge, danger and risk that contribute towards the adventure. Activities that appeal to this type of tourist include mountaineering, rock climbing, canyoning, trekking, exploring remote destinations (e.g., Madagascar), and going on a safari in less visited wildlife areas in Africa.

The heterogeneous nature of adventure tourism is illustrated by the broad range of characteristics, motivations, skills and experience of adventure travelers. Evidently, individuals choose to have a preference for soft or hard adventure for many different reasons. While this typology is useful in describing different types of adventure travel activities individuals participate in, the categories do little to explain the underlying motivations for adventure travel behavior. In the end, it is an individual’s personality and prior experience that influence behavior and not simply the category of activity.

Lastly, Millington et al. (2001) proposed a destination and activity driven adventure tourism typology. They made a basic division within the adventure tourism market between adventure travel that is *destination* driven and that which is *activity* driven. Destination and activity are then subdivided. In destination-driven adventure travel, the destination is the most important aspect of the trip, the traveler being interested in the landscape and scenery, the ecosystems, the people or the history of the place. The location will often be somewhere unusual, remote or exotic, providing novelty,

stimulation, discovery and challenge for the traveler. In activity-driven travel, it is the activity rather than the destination that is important. The destination could be a remote or wilderness area if the activity demands it, but could just as easily be near home as abroad. As the choice of terms suggests, the division used by Millington et al. (2001) is based on tourist drive and motivation. However, this means the same experience, for instance an overland trip in four-wheel drive vehicle, could either be regarded as an activity-driven trip (if the participant finds the driving activity adventurous) or as destination-driven trip (if the transport is used merely as a means to access a destination that would otherwise be inaccessible).

A number of approaches can be taken to categorize adventure tourism (Swarebrooke et al., 2003). It can be based on product categorization or consumer categorization. Creating a typology of adventure tourism will always be challenging due to the fact that consumers and suppliers do not always confine themselves to one category. Results of a study of adventure travelers have indicated that a substantial sector of respondents had participated in both hard and soft adventure in five years up to 1997 suggesting cross-over is common (TIA, 1998). Examinations of the dichotomies that exist within adventure tourism reveal the complexity of the subject as can be seen in Table 1.

Table 1

Dichotomies within Adventure Tourism

Hard	← →	Soft
Remote	← →	Local
Physical	← →	Spiritual
Organized	← →	Independent
Group adventure	← →	Solo adventure
Domestic	← →	International
Artificial environment	← →	Natural environment
Commercial adventure	← →	Voluntary adventure
Wilderness	← →	Urban
Low cost	← →	High cost
Planned	← →	Unplanned
Set itinerary	← →	'Go as you please'
Altruistic	← →	Hedonistic
Long trips	← →	Short breaks
100 percent adventure	← →	Intermittent adventure
Reliance on tourist facilities	← →	Limited use of tourist facilities
Politically stable destination	← →	Politically unstable destination
New adventure tourist	← →	Experienced adventure tourist
High-risk adventure	← →	Low-risk experience
Real	← →	Fantasy
Work	← →	Play

Swarbrooke, J., Beard, C., Leckie, S., & Pomfret, G. (2003). *Adventure tourism: The new frontier*.

Despite the fundamental importance of the study of motivation and personality to consumer researchers, finding a holistic view of the topic in consumer behavior or psychology is difficult. The inconsistent findings of research on personality and consumer behavior may be a result of the shortage of unified theories. Additional problems with current approaches to personality include the focus of many studies on narrowly defined traits which further fragments the study of personality and motivation. An excess of individual differences measures have emerged with little effort to find linkages between the constructs (Mowen, 2000).

Another area where personality and consumer behavior research findings are inconsistent is the use of psychological scales to investigate consumer phenomena which

can be viewed as inappropriate. Personality has traditionally been studied by clinical psychologists, medical doctors and psychiatrists concerned with mental well-being. Personality measurement instruments such as the California Personality Inventory (Gough & Bradley, 1996) and the Edwards Personal Preference Schedule (Edwards, 1959) were developed by psychologists to study *abnormal* behavior and not consumer behavior. Tourism behavior can be viewed as “normal behavior” and therefore should be studied differently (Fridgen, 1991; Jackson, White, & Gronn-White, 2001). Kassarian and Sheffet (1991) argued consumer behavior researchers should develop their own individual difference constructs. However, in a hierarchy of personality traits, these constructs exist at a surface level (Buss, 1989). It is not enough to know someone is adventurous or impulsive. A deeper understanding of more basic motives for surface traits is necessary. Researchers should also identify what underlying psychological traits contribute to someone being adventurous. Little effort has been made linking constructs of the numerous individual difference measures that have emerged. It is evident that an organizing model is necessary for understanding the possible relationships among the hundreds of extant personality scales. In sum, current models lack a theoretical network (i.e., nomological net) that explains the underlying psychological antecedents of the surface traits that have been identified.

The 3M Model of Motivation and Personality

The Meta-Theoretic Model of Motivation and Personality (3M Model), integrates diverse psychological theories and consumer behavior constructs into a coherent general theory of motivation and personality. Developed by Mowen (2000), the 3M Model integrates control theory (Carver & Scheier, 1990), evolutionary psychology principles

(Buss, 1988), and elements of hierarchical trait theory (Allport, 1936; Paunonen, 1998).

According to the model, personality traits are arranged in a four-level hierarchy.

Hierarchical models have been previously proposed by consumer researchers (e.g., Joachimsthaler & Lastovicka, 1984; Lastovick, 1982) as well as tourism researchers (e.g., Moscardo & Pearce, 1986; Pearce, 1988; 1991; Pearce & Caltabiano, 1983; Pearce & Lee, 2005); however, the 3M Model is the first to provide a general schema for classifying the level at which a particular trait resides. The primary goal of using an integrated model of motivation and personality in this research was to overcome the problem of dealing with a multitude of disconnected constructs in consumer behavior by providing an organizational structure for the placement of the individual difference variables.

The 3M Model employs a control theory approach (Carver & Scheier, 1990) and proposes that behavior is motivated when an actual or anticipated outcome diverges from one or more personality traits that act as reference points for evaluating outcomes. Based on hierarchical approaches to personality (e.g., Allport, 1937), traits are arranged in a four-level hierarchy from the most abstract level to the most concrete level. The four levels are labeled elemental traits, compound traits, situational traits, and surface traits.

Residing at the most abstract level are the elemental traits. Elemental traits are defined as cross-situational, enduring dispositions to respond that result from an individual's genetics and the early learning history. The eight elemental traits are: openness to experience, conscientiousness, extraversion (operationalized as introversion), agreeability, neuroticism (emotional instability), material needs, need for arousal, and physical/body needs. The first five traits were adapted from Saucier's (1994) version of

the Five-Factor model. The need for arousal was adapted from Zuckerman's (1979) work on sensation seeking. Developed from evolutionary psychology principles were the two constructs material needs and physical/body needs. That is, two needs that arose from selective selection pressures and were necessary for the survival of the species. For example, without a need to create material resources such as tools, weapons, clothing, and shelter, the species would not have survived.

Residing at the next level of the hierarchy are compound traits. Similar to elemental traits, they are cross-situational in nature. Compound traits are defined as enduring dispositions that result from the effects of subsets of elemental traits as well as from cultural and sub-cultural influences. General self-efficacy, competitiveness, the need for learning, and the need for activity are examples (Mowen, 2000). Analogous to physical compounds, compound traits result in part from the effects of elemental traits.

The third type of constructs in the 3M Model are situational traits. They are defined as enduring dispositions to behave within a general situational context. Situational traits are influenced by the pressures of the situational environment and the effects of the elemental and compound traits. For instance, health motivation was identified as residing at the situational level (Moorman & Matulich, 1993; Mowen, 2000). That is, the trait manifests in situations that deal with health – broadly defined.

Finally, at the most concrete level are surface traits. These constructs represent highly specific enduring dispositions to behave that result from the effects of elemental, compound, and situational traits as well as from the pressure of the context-specific environment. Surface traits occur in narrow contexts that fall within the more general context of the situational traits. For example, Mowen (2000) found that the surface trait

of healthy diet lifestyles resulted in part from the more general trait of health motivation (Moorman & Matulich, 1993) as well as the elemental traits of physical/body needs and need for arousal (negative relationship). Because surface traits are context specific, they have a strong relationship with behavioral measure. In other words, they are associated with specific behaviors that occur within a specific time period.

In sum, in the 3M Model the four levels of traits provide the reference points for the control theory model, moving from the most abstract to the most concrete, beginning with elemental, compound, situational, and finally surface. These traits form an individual's self-concept. A summary of the 3M Model hierarchy is provided (Table 2).

Table 2

Levels of Traits in the 3M Model Hierarchy

Level 1: Surface Traits 1) Highly specific, context constrained enduring dispositions; 2) very numerous in number; and 3) result from the effects of Level 4-2 constructs and the press of the context. Examples: surface traits such as health diet lifestyle.
Level 2: Situational Traits 1) Situationally specific enduring dispositions; 2) more numerous than Level 3 constructs; and 3) result from combinations of Level 3-4 constructs and the press of the general situation. Examples: situational traits such as health motivation.
Level 3: Compound Traits 1) Abstract, cross-situational enduring dispositions; 2) more numerous than Level 4 constructs; and 3) combine to form more concrete constructs. Examples: compound traits (Mowen, 2000), instrumental values (Rokeach, 1979).
Level 4: Elemental Traits 1) Highly abstract, cross-situational enduring dispositions; 2) very limited in number; and 3) combine to form more concrete constructs. Examples: elemental traits (Mowen, 2000), terminal values (Rokeach, 1979).

Mowen, J. C., & Voss, K. E. (2008). *On building better construct measures: Implications of a general hierarchical model.*

Hypotheses Development

Elemental Traits

At the first level of the hierarchy are the elemental traits. Elemental traits are defined as “unidimensional underlying predispositions of individuals that arise from genetics and early learning history and represent the broadest reference for performing programs of behavior” (Mowen, 2000, p. 21). Based on a series of studies, the 3M Model proposes eight elemental traits: need for arousal, agreeability, conscientiousness, openness to experience, neuroticism, material needs, extroversion, and body needs. The structure, the predictive validity, and the construct validity of the eight elemental traits were supported in a series of studies (Mowen, 2000). Additionally, the discriminant validity of the elemental traits was supported in research by Licata, Mowen, Harris, and Brown (2003).

Considered building blocks for more concrete-level traits, Mowen (2000) suggested that the all the elemental traits should be included as control variables when analyzing the full hierarchical model. Elemental traits combine to influence the development of compound, situational, and surface traits, thus the effects of the elemental traits should be statistically controlled when evaluating the impact of more concrete traits. This also minimizes the likelihood of the omitted variable problem. That is, if the elemental traits are not included, it can appear as though a compound or situational trait is predicting a surface trait. However, when the elemental traits are added, the relationship disappears. Mowen and Voss (2008) have given the name ‘illusory prediction’ to this phenomenon.

Accordingly, each of the eight elemental traits will be investigated in the present research either as a control variable or as an antecedent of the surface trait ATP. Based on the previous literature, two of the elemental traits – the need for arousal and agreeability– were proposed to be associated with ATP.

Need for arousal. The need for arousal is defined as “the desire for stimulation and excitement” (Mowen, 2000, p. 29). One motivation for taking an adventure travel vacation may be to gain stimulation through the senses. Based upon the work of Zuckerman (1979), Mowen (2000) developed a scale to measure sensation seeking, which he labeled the need for arousal (i.e., the desire for stimulation and excitement). These ideas suggest that individuals who have a greater desire for excitement will show a stronger propensity for adventure travel.

Berlyne (1978), a leading investigator of arousal theory, proposed that some people prefer highly stimulating situations that match their high levels of optimal stimulation, whereas others avoid over stimulation since their preferred levels of arousal are much lower. In the context of leisure and tourism, Iso-Ahola (1989) offered that optimal level of stimulation could be understood as a balance between the need for stability and the need for variety. A number of studies have explored and confirmed the influence of the need for arousal and recreation and travel behavior.

Research supports participation in recreation and tourism can be used to fulfill the need for arousal. Zuckerman’s (1994) sensation seeking scale has been used to understand the influence of need for arousal in both recreation and tourism behavior. Sensation seeking has been positively related to a number of adventure recreation activities including: parachuting (Rowland, Franken, & Harrison, 1986), mountain

climbing (Robinson, 1985) and down-hill skiing (Bouter, Knipschild, Feij, & Volovics, 1988), tourism (Eachus, 2004), and adventure tourism (Gilchrist, 1994; Gilchrist et al., 1995).

In a study of overland travelers Gilchrist (1994) found adventure travelers have a greater desire to engage in risky and adventurous sports and activities involving speed and danger. Gilchrist (1994) also suggested that adventure travelers “seek more experiences through mind and senses, travel and non-conforming lifestyles” (p. 35). In a follow-up study, Gilchrist et al. (1995) tested the hypothesis that propensity for adventure vacations and sensation seeking are related. As assumed, the thrill and adventure subscale of the sensation seeking scale was significantly related to a propensity for adventure vacations. The authors concluded that the concept of sensation seeking is useful in tourism research. The association of sensation seeking with adventure activities as mentioned above attests to its usefulness in predicting certain types of leisure and tourism activities.

Based on the literature, it is evident that the concept of need for arousal has found significant currency in the fields of recreation and tourism. Need for arousal has been proposed to influence the decision to engage in adventure travel. Because of its relationship to recreation and tourism behavior, it is anticipated that the need for arousal would be positively influence the surface trait of ATP.

H¹: The elemental trait *need for arousal* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

Agreeability. The second elemental trait proposed to be associated with ATP, is agreeability. Agreeability is defined as “the need to experience kindness and sympathy towards others” (Mowen, 2000, p.29). Costa and McCrae (1992) found that individuals who can be described as agreeable are also perceived as being trusting, cooperative, and compliant. As defined, agreeability refers to how individuals relate with others and how considerate they are of others’ feelings and opinions. Agreeable people see others as mostly honest and trustworthy; they are straightforward and frank, willing to help out, yielding rather than aggressive in conflict, modest and unpretentious, and caring, nurturing and supportive.

Agreeability has been associated with play and adventure recreation and has been seen by some as a form of adult play (Carpenter & Priest, 1989). Because play is intrinsically motivated and involves positive emotions, one can anticipate that elemental traits that have positive emotional tone, such as agreeability and extroversion, would be associated with play. Thus, the elemental trait of agreeability is proposed to influence ATP.

H^2 : The elemental trait *agreeability* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

Compound Traits

At the second level of the hierarchy are the compound traits. Compound traits are defined as “the unidimensional predispositions that result from the effects of multiple elemental traits, a person’s learning history, and culture” (Mowen, 2000, p. 21).

Compound traits differ from the elemental traits in that elemental traits provide general

guidelines for selecting and running programs of behavior. Like the elemental traits, they provide reference points for evaluating and interpreting outcomes, but they are narrower in application than elemental traits and function specifically to guide programs of the control model behavior. Traits hypothesized to function at the compound level include: task orientation - close relative achievement motivation, the need for learning, need for activity, need for play, and effectance motivation. The compound traits investigated in the current research are: (1) competitiveness, (2) altruism, and (3) the need for learning. While other compound traits have been developed (e.g., task orientation, need for activity), these three were selected as a result of the implications drawn from previous research.

Competitiveness. According to Spence and Helmreich (1983) the competitiveness trait is defined as “the enjoyment of interpersonal competition and the desire to win and be better than others” (p. 41). A study conducted by Deci and Ryan (2000) found that the sense of competence gained through competition can be intrinsically motivating. Therefore, people will seek out activities that are likely to provide them with intrinsic rewards and a sense of autonomy and competence.

The competitiveness trait has been explored extensively in the sport and physical education literature (Duda, 1993a; 1993b; Frederick-Recascino & Schuster-Smith, 2003; Roberts, 1992). Mowen (2004) employed a hierarchical personality model approach to investigate the trait of competitiveness and results indicated the trait was positively associated with consumer behavior in three contexts: (1) besting others directly in contests (e.g., playing sports), (2) besting others indirectly through vicarious experiences (e.g., observing sports as a fan or watching drama-based movies), and (3) besting others

via the conspicuous consumption of material goods (e.g., purchasing innovative electronic products). Frederick-Recascino and Schuster-Smith (2003) suggested competitiveness exists in other life domains and not only in sporting environments.

Achievement goal theory suggests that goal orientations and the perceived motivational climate influence recreation behavior (Katzell & Thompson, 1990). Someone who is competitive should have a higher level of achievement motivation (Ward, 1997). Tran and Ralston (2006) observed individuals with high need for achievement tended to prefer tourism experiences which were challenging and involved natural settings. These results are consistent with McClelland's (1965) theory, in which achievement motivation was linked to overcoming challenges. The results suggest people possessing a high need for achievement will be more competitive and most likely prefer adventure travel. Based on the literature, competitiveness may be an antecedent of ATP and thus, the following hypothesis is proposed.

H³: The compound trait *competitiveness* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

Altruism. The third compound trait proposed as a result of previous research is altruism (Brown & Lehto, 2005; Bussell & Forbes, 2002; Mowen & Sujan, 2005; Unger, 1991; Wearing, 2001). Altruism is defined by Mowen and Sujan (2005) as a "general predisposition to selflessly seek to help others" (p. 173). Empirical research conducted by Unger (1991) found support for altruistic motives in volunteerism. She identified the

construct as the primary motivator for volunteering to help others. Bussell and Forbes (2002) also noted “a volunteer must have some altruistic motive” (p. 246).

A growing trend in the tourism industry is the concept of ‘volunteer tourism’ (Wearing, 2001). Brown and Lehto (2005) suggested volunteer vacationers are driven by the sense of adventure, desires for exploration and novelty that are not as prominent with the more serious volunteer travelers. Using Plog’s (1974) typology, they went on to propose volunteer vacationers can also be labeled as allocentrics - explorers and adventure seekers who tend to choose remote and untouched destinations. The sense of adventure and desire for exploration and novelty found to be prominent in volunteer vacations may be why so many adventure travel tour operators offer opportunities to give back to the communities they visit.

Anecdotal support for the link between the adventure travel industry and travel philanthropy or altruism can be found in adventure tour operator’s websites and brochures. The most noted objectives include commitment to the cultural and environmental well-being of the places visited. These objectives are furthered through partnerships with an array of non-profit organizations. One example, Geographic Expeditions (<http://www.geoex.com/index.asp>), promotes the motto: “we follow scientifically supported on-the-ground and at-sea minimum-impact practices. We seek to create inspirational experiences for our travelers, and we partner with a wide array of nonprofit organizations that further these objectives.” According to Sustainable Travel International (2009) this is considered travel philanthropy, also known as altruistic travel. Travel philanthropy or altruistic travel is defined on Sustainable Travel International’s website as “a voluntary movement of conscientious consumers and responsible travel

companies who are donating financial resources, time, talent and economic patronage to protect and positively impact the cultures and environments they visit”

(<http://www.sustainabletravelinternational.org/>).

Following Mowen and Sujan (2005), altruism was identified as a cross-situational, compound-level trait in this study. Based on the literature, it is hypothesized that altruism will positively influence ATP. Thus, H^4 is proposed:

H^4 : The compound trait *altruism* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

Need for learning. The second compound trait proposed to influence ATP is the need for learning. Mowen (2000) defined need for learning as “an enduring disposition to seek information resource” (p. 72). He developed a measure of the need for learning and identified it as a compound trait. The construct was designed to measure the cross situational predisposition to obtain information resources.

According to Swarbrooke et al. (2003), exploration and discovery are core components of the adventure process. The increased knowledge and self-awareness that accompanies the discovery of new places, cultures and skills from one of the rewards travelers seek from their experience. Addison (1999) argued that education and the hunger to learn from new situations are key motivations for both travel and adventure. Walle (1997) offered an expansion and redefinition of adventure tourism by proposing the insight model as its basis. He argued that it is the quest for insight and knowledge (rather than risk) that underlies adventure tourism. He proposed to replace the prevalent

risk theory as the foundation of adventure tourism based on the important role of knowledge and learning in the adventure experience. Sung et al. (1997) suggested that a reason for engaging in adventure travel is the educational opportunities. In addition, Weber (2001) identified learning and insight as motives for engaging adventure travel. These studies suggest that a motive for engaging in adventure travel may be to learn more about other people, places, and cultures.

Based on previous research it is anticipated that the need for learning would positively influence ATP. Thus, the following hypothesis is offered:

H⁵: The compound trait *need for learning* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

Situational Traits

At the third level of the hierarchy are situational traits. Situational traits are defined as “the unidimensional predispositions to behave within a general situational context” (Mowen, 2000, p. 21). They are influenced by the pressures of the situational environment and by the effects of elemental and compound traits. A number of situational traits exist including: value consciousness, general sports interest, product leadership, and health motivation. Situational traits result from the interaction of the situational context with more basic personality characteristics, and are predictive of the more concrete surface traits. Mowen and Sujan (2005) proposed that situational traits act as motives for engaging in behavior. According to Mowen (2000), a starting point for identifying the contexts within which situational traits emerge can be found in Belk’s

(1974) work on situational influences. Thus, dispositions to behave may emerge with regard to circumstances involving the social context, time, and task definition.

Mowen and Sujan (2005) proposed that situational traits act as motives for engaging in behavior. In the present research, three situational traits are investigated: (1) interest in cultural experiences, (2) need for uniqueness, and (3) fashion leadership. These three situational traits were selected as a result of the implications drawn from previous research as described below.

Interest in cultural experiences. Interest in cultural experiences is proposed to be a reason people participate in adventure travel. Similar to the measure of arts and humanities (Mowen & Carlson, 2003), the interest in cultural experiences trait was proposed to be a situational trait. According to Tran and Ralston (2006), interest in cultural experience comprises the activities that take place on the mosaic of places, traditions, art forms, celebrations, and experiences portraying the beauty of a country and its people, reflecting the diversity and character of the country. Individuals interested in cultural experiences seek out opportunities to broaden their participation in the arts and involvement with local artisans. An individual may be motivated to travel to gain cultural experiences such as those that result from exposure to indigenous people, trying local foods and customs, and diverse destinations.

The diverse nature of adventure tourism means that participants have a wide range of motives. Adventure research has traditionally focused on gaining skills and competence in a natural setting involving some risk. However, recently the role of cultural experiences has been identified as an important motive for adventure travelers. In a study by Sung et al. (1997), interpretation of the environment and culture was noted as

one of the benefits adventure travelers seek from their adventure experiences. According to Weber (2001), motivations beyond those traditionally identified by adventure researchers include the desire to travel through peripheral destinations, often rich in cultural traditions. It was concluded that the cultural environment is important to the adventure tourist. Consumer research conducted on behalf of the Adventure Travel Trade Association (<http://www.adventuretravel.biz/>) also supports the importance of culture and ecotourism in adventure experiences (Schneider & Vogt, 2005).

These studies illustrate the importance adventure travelers place on the cultural aspect of their adventure travel experience. Thus, the following hypothesis is proposed:

H⁶: The situational trait *interest in cultural experiences* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

Need for uniqueness. The second situational trait proposed as a result of previous research is need for uniqueness. Consumers' need for uniqueness is defined as an individual's pursuit of differentness relative to others that is achieved through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's personal and social identity (Tian et al., 2001). One way individuals differentiate themselves is through product purchases of which travel may serve as a recognizable symbol of uniqueness (Tian et al., 2001).

Status has been related to the purchase of adventure tourism products. The concept of status clearly varies between different kinds of products and experiences. It may mean exclusivity on the basis of rarity or the uniqueness of the experience and/or high price. Alternatively, status may be gained from being away from other tourists or

visiting exotic destinations at low cost as a budget traveler. Here, the lower the price paid, the greater the status. This is particularly the case in the student backpacker market (Swarbrooke et al., 2003). Thus, travel experiences with distinct characteristics may allow a person to stand out among others, therefore providing a sense of uniqueness.

Based on the literature H^7 is proposed:

H^7 : The situational trait *need for uniqueness* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

Fashion leadership. The third situational trait proposed to be a motive for adventure travel is fashion leadership. Goldsmith, Freiden, and Kilsheimer (1993) described fashion leaders as those who learn about new fashions earlier than the average buyer and purchase new items soon after they are introduced to the market. The relationship between the adventure tourism and outdoor fashion industry is evidenced by the rapid growth of each segment of the adventure industry. Sung et al. (1997) noted the rapid growth of adventure tour operators matched the growth of equipment and gear manufacturers, as well as commercial outfitters and retailers. During the past decade growth has continued with outdoor retailers like North Face, Patagonia, and REI leading the way.

Fashion leadership may be a motive for adventure travel because of the requirements of suitable attire for adventure experience. Both technical and non-technical clothing involved in many adventure tourism activities is a central part of their role in performance (Buckley, 2007). Tied to the conceptions of looking good, are notions of “looking like” or having the image of being an adventurer.

The idea of an adventure identity is evidenced by an article in *Rock and Ice*, a magazine for rock climbers (Bisharat, 2007). In *Unconscionable Fashionable*, the author suggests that, while climbers want to “look” like climbers, the biggest taboo in climbing is admitting that the sport has fashion. The word “fashion” has always suffered from its association with fads and materialism, two things climbers prefer to avoid. In the last five years, a growing number of “climber clothing” companies have emerged such as Climb It, Khadejha, Blurr, Stonewear Designs, and Nau and Sickle, joining those that have been around forever, including Gramicci, Patagonia, Prana and Verve.

Leisure and travel behavior has been linked to an individual’s identity (Haggard & Williams, 1992; Prebensen, Larsen, & Abelsen, 1993). Wearing and purchasing of adventure clothing and gear allow an individual to form and express his or her personal identity (Evans, 1989). Research has shown clothing has been an effective category in identity formation (Dodd, Clark, Baron, & Houston, 2000). Thus, it can be proposed that individuals express their personal identity through the purchase of adventure travel clothing and gear. Based on these ideas H^8 is proposed:

H^8 : The situational trait *fashion leadership* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

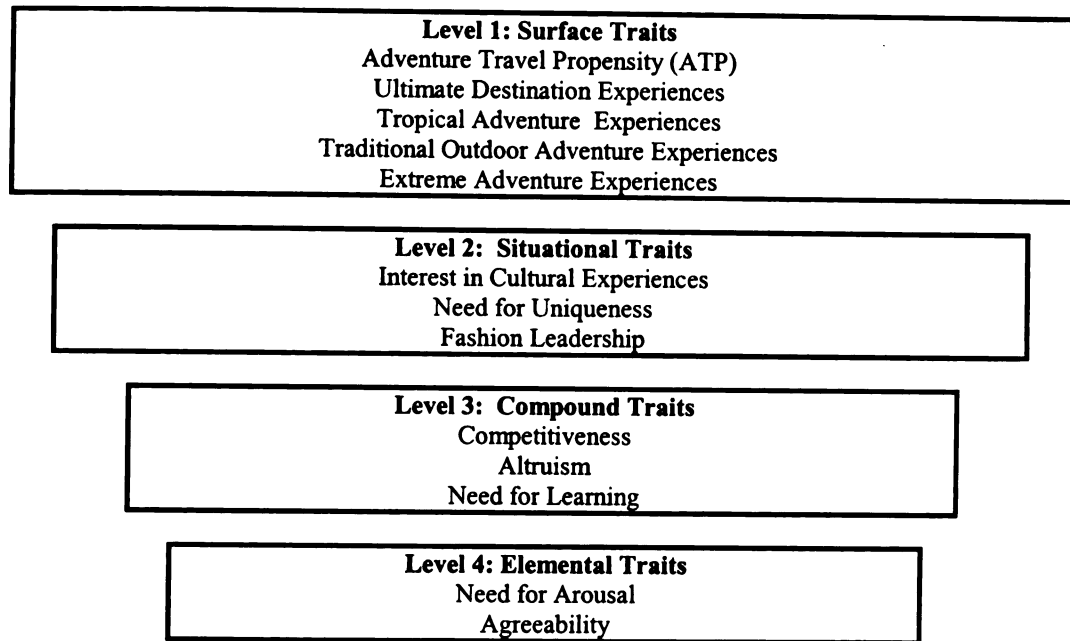
Surface Traits

At the fourth and final level of the hierarchy are surface traits. Surface traits “delineate the programs of behavior that individuals run in order to complete tasks” (Mowen, 2000, p. 21). These traits are a result of person, situation, product and category interactions. Surface traits result from the effects of elemental, compound, and situational

traits as well as from the pressure of the context specific environment. In contrast to the more general situational traits, surface traits occur in narrower contexts and can be expected to lead to a category specific disposition. In the context of the 3M Model, Mowen (2000) proposed that a combination of traits from the different levels of the hierarchy directly and/or indirectly influence outcomes. Surface traits are expected to be strong predictors of outcomes. A new scale was developed for this study to measure ATP, as a function of adventure travel experiences. ATP is conceptualized as a surface level trait because of its specificity. ATP represents an enduring disposition, not a specific act or behavior. Because the 3M Model proposes that partial mediation exists between traits at each level in the hierarchy, it can be anticipated that a combination of traits will be predictive of the surface trait. Figure 2 provides a summary of the proposed hypotheses within the 3M Model hierarchy.

Figure 2

Conceptual Model Adventure Travel Propensity



Summary of the Literature Review

The concept of personality as a predictor of travel behavior makes intuitive sense to both marketers and academics. However, the review of literature consumer behavior and tourism research literature related to personality research indicates that it has fallen short on accurately predicting tourist behavior (Jackson et al., 2001). Understanding the individual person in his or her role as a consumer should be a key issue in the study of tourist behavior. Therefore, expanding the scope of personality research currently available in the field of travel and tourism is a useful exercise. Several studies have indicated a positive relationship between personality and tourist behavior, but results have been inconsistent. These inconsistencies may be the result of the lack of an

overarching theory, which acknowledges that a hierarchy of personality traits plays a role in behavior.

Building on the conceptual framework developed by Mowen (2000), the motivation and personality systems of adventure travelers were examined. To summarize the following hypotheses were proposed:

H^1 : The elemental trait *need for arousal* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^2 : The elemental trait *agreeability* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^3 : The compound trait *competitiveness* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^4 : The compound trait *altruism* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^5 : The compound trait *need for learning* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H⁶: The situational trait *interest in cultural experiences* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H⁷: The situational trait *need for uniqueness* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H⁸: The situational trait *fashion leadership* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

In Chapter II an in-depth overview of the study's theoretical concepts and justification of the constructs were explored in relation to personality and adventure tourist behavior. The study's proposed model and hypotheses were also discussed. Chapter III outlines the research methodology used to obtain and analyze information for this study consisting of the sample and population description, data collection techniques, non-respondents assessment, research instrument (including reliability testing), followed by statistical procedures.

CHAPTER III

METHODOLOGY

The philosophical stance of the researcher is outlined in this section, providing a briefing on the methodological choices underpinning the current study. In developing a research proposal, considerable effort should be exerted in determining which methodologies and methods will be employed (Crotty, 2003).

Paradigms are the fundamental models or frames of reference used to organize observations and reasoning. They are general frameworks, literally “points from which to view” providing ways of looking at life that are grounded in sets of assumptions about the nature of reality. Social scientists use a variety of paradigms to organize and inquire into social life (Babbie, 2001). Given the research problems and questions outlined above, a post positivist approach to the research was determined to be best, since it is concerned with finding the facts and causes of social and human phenomena (Crotty, 2003). This approach permitted the researcher to analyze the situation through hard data gleaned from replicable research. Using a post positivist approach shaped the methodology, since data were collected in a structured manner, and the aim of the researcher was not to intervene in the phenomenon that was investigated.

This study drew on the methods of previous tourism and consumer behavior research and chose to engage in survey research, employing a quantitative method of statistical analysis. The following sections discuss the research method used to obtain and analyze information for this study. First, the population and sample are described. Next, the data collection techniques and study instrument, non-respondent survey, and

reliability tests are described. Finally, the statistical tests used for data analysis are explained including the scale development.

Methods

Study Population and Sampling

Sampling is the process of selecting units (e.g., people, organizations) from a population of interest. By studying the sample, the results may be generalized back to the population from which they were chosen (Babbie, 2001; Trochim, 2005). In most applied social research, it is the group to which the researcher seeks to generalize. In the current study, the theoretical population of interest is adventure travelers. To draw a sample, a list of accessible members of the population was required.

With the theoretical population identified as adventure travelers, the accessible population for the current study was subscribers to *National Geographic Adventure* magazine. Accessible populations to study adventure travelers included other adventure focused magazines such as *Outside*, *Men's Journal*, *Climbing*, *Rock and Ice*. However, these publications were determined to be either gender-focused, narrow in scope, or too specialized for the purposes of the current study of general adventure travel behavior. A number of television programs exist that appeal to the adventure travel market as well, but an accessible population "list" of viewers does not exist.

Beginning in the fall of 2004, the researcher conducted research at consumer adventure travel trade shows in partnership with the Adventure Travel Trade Association (ATTA). The ATTA "serves as a strategic membership organization for companies in the adventure travel arena. The ATTA is dedicated to raising the profile of adventure travel in the world travel market and provides valuable services, knowledge and connections to

help members succeed in their businesses, thereby contributing to industry-wide growth” (<http://www.adventuretravel.biz/>). Through the ATTA, relationships were established with representatives from National Geographic who agreed to support the study of adventure travelers for this dissertation. National Geographic provided the funds to cover the costs involved in printing and mailing the survey, as well as supplying incentives to ensure the best possible response rate. Finally, National Geographic granted unrestricted access to their mailing list for the sample to be drawn. Thus, the sampling frame, the listing of accessible population from which the sample was drawn, was taken from a list of individuals who were current subscribers to *National Geographic Adventure* magazine in 2007.

National Geographic Adventure magazine (NGA) was launched in 1999 and is published by the National Geographic Society. The National Geographic Society’s mission is to “Inspire People to Care about the Planet,” and NGA extends that mission by sending people out to experience cultures and outdoor activities in the world’s most compelling local and international places. They describes their readers as “consumers who are curious about the world and all the fun things to do in it, eager to break out of their comfort zone to achieve a great life experience, and are proactive about their health; challenge seekers who relish the feeling of accomplishment” (*National Geographic Adventure* Media Kit, 2006). The editorial profile for NGA states: “NGA is the only magazine fully committed to covering the adventure lifestyle, largely characterized by outdoor sports and adventure travel” making NGA subscribers an ideal population to sample to empirically test if a set of personality traits exist that are predictive of ATP.

The subscriber group can be considered as actively involved or at least interested in taking adventure travel trips, therefore representing adventure travelers in the United States. To generalize findings of a study for strong external validity, most researchers recommend selecting a random sample, in which each individual in the sample has equal probability of being selected (Cresswell, 1994). Other researchers suggest that such randomly selected samples should be stratified so that specific characteristics can be represented in the sample and reflect the true characteristics of the entire population (Fowler, 1988; Levy & Lemeshow, 1999; Morrison, 1996). The stratified random sampling method adopted in this study was based upon NGA subscriber distribution in the four census regions within the United States (Table 3), which reflects the proportions of the samples drawn from each region in order to represent the true distribution of the entire population. As noted in Alreck and Settle (2004), the maximum practical size for a sample under ordinary conditions is about 1,000 respondents. Therefore a sample of 1,000 subscribers was drawn based on the total paid and verified subscriptions (220,847). The subscriber group can be considered as being activity involved or interested in adventure travel, representing adventure travelers in the United States.

In addition to the NGA sample, a general population sample was also drawn; however, the focus of this dissertation is the NGA sample only. As an extension of the current study, results from the NGA population will be compared with the general population sample to explore difference in motivation-personality traits between the two groups.

Table 3

Circulation of National Geographic Adventure Magazine Subscribers for Stratified Random Sampling

Geographic Regions	Divisions	Number of Subscribers	%
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont	41,470	18.7
South	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia	80,479	36.4
Midwest	Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin	49,517	22.5
West	Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming ¹	49,381	22.4
Total		220,847	100

¹ Alaska and Hawaii residents were not included in the survey in keeping with a sample from the 48 contiguous states.

Data Collection

Self-administered questionnaires were mailed and data collected during the fall of 2007. The majority of previous studies of adventure travel behavior employed survey research methods for collecting data. Surveys may be used for descriptive, exploratory and explanatory purposes. According to Fowler (2001), survey research is one of the most important areas of measurement in applied social research. Employing probability sampling allows the administrator to collect data from a group of respondents whose characteristics reflect those of the population which may be too large to observe directly. Morrison (1996) pointed out that mail surveys are a popular research method in travel and tourism because of the many advantages offered. The main advantages of a mail survey include: they are relatively inexpensive to administer, the exact same instrument can be sent to a wide number of people, and respondents can complete at their

convenience (Trochim, 2005). Additionally, surveys are valid instruments for measuring attitudes and behaviors (Fowler, 2001). However, a few disadvantages of a mail survey include: low response rates, as well as lack interaction with respondents (Trochim, 2005).

A multi-method approach was used to develop the survey instrument. First, a literature review of existing research related to adventure recreation and tourism, consumer behavior, and personality was completed. Second, a panel interview with adventure industry leaders was conducted. Key representatives from the Outdoor Industry Association (OIA), ATTA, and National Geographic were identified as those with the greatest amount of insight, or information rich cases, on the topic of adventure recreation and tourism. Patton (1990) described information rich cases as “those from which one can learn a great deal about the issues of central importance to the purpose of the research” (p.169). The primary topics of interest and questions salient to the key representatives of the adventure industry were: (1) What aspects of our self concepts influence our priorities in becoming tourists or adventurers, (2) What do people aspire to do on vacations and how does that relate to what they actually do, (3) What is the profile of the adventure traveler (e.g., owning a passport, pre and post trip lifestyle changes, international travel experience/intentions, number of vacation trips taken per year), and (4) What are the most powerful marketing techniques to influence adventurers? A questionnaire was developed combining previous studies and theories in the consumer behavior and recreation and tourism literature along with key industry perspectives.

To ensure content validity of the questionnaire and clarity of questions and instructions, a draft survey was shared with the adventure industry panel and tourism researchers and feedback requested. In addition, the draft survey was pilot tested with

tourism students at Michigan State University. As suggested by Creswell (1994), this testing is important to establish the face validity of the questionnaire and improve questions, format, and the scales of the instrument. Next, the questionnaire was modified as a result of feedback from industry leaders and the pilot study, and a finalized version of the questionnaire was administered following Dillman's (2000) total design method for mail surveys (Appendix A: Survey Instrument). The questionnaire was mailed along with a cover letter and pre-paid envelope (Appendix B: Survey Cover letter). The cover letter included a statement guaranteeing respondents' data confidentiality and protection of their privacy. One week later, a postcard reminder was sent, followed by a revised second letter and a replacement questionnaire in another two weeks to reduce non-response rate (Appendix C: Postcard Reminder).

Ordinarily, response rates for mail surveys are low, resulting in two negative effects: (1) increased costs because the number of mailing pieces must be several times the number of respondents required and (2) increased likelihood of non-response bias, reducing validity. To minimize costs and reduce non-response bias, offering an inducement to respond to the survey is suggested (Alreck & Settle, 2004; Dillman, 2000).

Inducements tend to catch the recipients' attention and put them in a more positive frame of mind. Respondents were offered the chance to have their name drawn to win two round trip airline tickets anywhere in the contiguous U.S. or travel related prizes provided by National Geographic. One disadvantage to using drawings or sweepstakes is that some people will absolutely refuse to reveal their identity, especially if the survey topics or issues are controversial or confidential in nature. Therefore, asking them to relinquish their anonymity may decrease rather than increase response rate. There

is also the chance that those who love to enter drawings and those who don't hold systematically different views on the issues or topics of the survey. If so, the inducement will cause non-response bias (Alreck & Settle, 2004). However, because of the non-controversial nature of the topic of travel as well as the fact most people enjoy talking about their travel experiences, respondents may find the opportunity to win airline tickets of interest, making the drawing a logical choice for the audience, as well as keeping within budget constraints. Winners were selected in January 2008 and prizes were sent by National Geographic directly to those selected (travel related prizes were a *National Geographic Adventure* magazine logo duffle bag, *National Geographic Adventure* book, and *National Geographic* baseball hat and t-shirt).

Prior to commencing the study, ethical clearance was obtained from University Committee on Research Involving Human Subjects (UCRIHS) at Michigan State University (Appendix D: Copy of UCRIHS Approval Letter).

From 1,000 surveys, 17 were undeliverable, and 339 were returned and completed for an overall response rate of 34%. Response rates by sample and geographic region are provided in Table 4.

Table 4

Response Rate of the Mail Survey

Geographic Region¹	Original Sample Size	Returned as Undeliverable	Effective Sample Size	Respondents	Response Rate %
Northeast	176	3	173	60	17.7
South	287	5	282	97	28.6
Midwest	209	4	205	81	23.9
West	328	5	323	101	29.8
Total	1,000	17	983	339	34.5

¹ Alaska and Hawaii residents are not included in the survey in keeping with a sample from the 48 contiguous states.

Non-respondent Survey

Once the data collection period ended, a non-response study was conducted to assess any biases in the dataset. The survey cover letter and non-response instrument cover used in the study are provided. The non-response survey consisted of several key variables used in the study to determine differences in responses between the main study participants and non-respondents. A total of 100 non-response surveys were mailed to assess any biases in the dataset in January 2008. From the 100 non-response surveys, 5 were undeliverable and 26 were returned and complete for an overall response rate of 27%. The one-page questionnaire included several key variables used in the study: personality traits, travel experience and intentions. Independent sample *t*-test was computed to test for differences between the main study and the non-response study.

No significant differences were found between the main study and non-response study in terms of personality traits. Participants in the non-respondent survey were also asked why they did not complete and return the original survey. Multiple responses

included: survey came at the wrong time, survey was too long, or don't participate in research studies.

Survey Instrument

The survey instrument included demographic and travel behavior variables such as travel experience and travel intent, and pre-, during and post travel behavior. In addition, the survey instrument was comprised of a series of personality items based on previous research, all of which had previously been tested for internal consistency reliability and convergent validity. As recommended by Mowen (2000), all of the elemental and compound traits were measured on nine-point scales to give variability in the positive end of the scale to identify differences and to some extent to avoid restriction of range issues. Seventeen constructs were investigated in the study: eight elemental traits (conscientiousness, openness to experience, agreeability, neuroticism, material needs, extroversion, need for arousal, and body needs), three compound traits (competitiveness, altruism, and the need for learning), three situational traits (interest in cultural experiences, the need for uniqueness, and fashion leadership), and one surface trait, ATP (Appendix G: Survey Instrument Key).

Each of the measures of the elemental traits consisted of four-items, and they were obtained from Licata et al. (2003). The items were assessed by asking respondents to indicate "How often does the characteristic describe how you see yourself in everyday life?" Respondents answered on a nine-point scale anchored by '1 = never' and '9 = always.'

Compound traits are cross-situational, enduring dispositions that result from culture, sub-culture, the learning history of the individual, as well as the effects of the

combinations of the elemental traits. The three compound traits proposed to predict ATP were: (1) competitiveness, (2) altruism, and (3) the need for learning.

The four-item scale measuring the compound trait competitiveness was obtained from Mowen (2002). The items were assessed by asking respondents to indicate “How often does the characteristic describe how you see yourself in everyday life?”

Respondents answered on a nine-point scale anchored by ‘1 = never’ and ‘9 = always.’

The four-item scale measuring the compound trait altruism was obtained from Mowen and Sujan (2005). The items were assessed by asking respondents to indicate “How often does the characteristic describe how you see yourself in everyday life?”

Respondents answered on a nine-point scale anchored by ‘1 = never’ and ‘9 = always.’

The four-item scale measuring the compound trait need for learning was obtained from Mowen (2000). The items were assessed by asking respondents to indicate “how often does the characteristic describe how you see yourself in everyday life?”

Respondents answered on a nine-point scale anchored by ‘1 = never’ and ‘9 = always.’

Situational traits act as motives for engaging in behavior. The three situational traits proposed to predict ATP were: (1) interest in cultural experiences, (2) need for uniqueness, and (3) fashion leadership.

The scale developed by Mowen and Carlson (2003) to measure interest in the arts which focused on poetry and institutional art was adapted for this study resulting in a seven-item measure of cultural travel experiences. The items were assessed by asking respondents to indicate “How often does the characteristic describe how you see yourself in everyday life?” Respondents answered on a nine-point scale anchored by ‘1 = never’ and ‘9 = always.’

The nine-item scale measuring the need for uniqueness was obtained from Tian, Bearden and Hunter (2001). Because the need for uniqueness is conceptualized as having three dimensions, indicators were created by taking the mean of the items for each dimension of the construct. Respondents were asked to indicate their agreement or disagreement with each of statement, based on a five-point scale where '1 = strongest disagreement' and '5 = strongest agreement.'

The measure of fashion leadership was taken from Goldsmith et al. (1993) and consisted of six-items. The items were assessed by asking respondents to indicate "How often does the characteristic describe how you see yourself in everyday life?" Respondents answered on a nine-point scale anchored by '1 = never' and '9 = always.'

For the surface trait, a measure of ATP was developed. ATP is the selection of an activity in an unusual, exotic, remote, or wilderness destination and tends to be associated with high levels of involvement and activity by the participants, most of it outdoors (Tran & Ralston, 2006). Tourists with a high propensity for adventure would like to visit unusual and exotic destinations, gain new experience, interact with local culture, engage with nature, and challenge their physical and mental skills. A 24-item scale consisting of a list of dream travel experiences was developed (e.g., visiting all seven continents, hiking in a rainforest). Respondents were asked to indicate whether they "had dreamed of having the travel experience" based on a five-point scale, where '1 = not at all' and '5 = absolutely.' A higher score indicated a greater interest in having the experience.

Factor analysis was employed to determine the underlying factors of ATP, and the results are provided in Chapter IV. Four adventure travel experience types were identified: (1) ultimate destination experiences, (2) tropical adventure experiences, (3)

traditional outdoor adventure experiences, and (4) extreme adventure experiences.

However, the individual variables are treated as a function of the surface trait adventure travel propensity (ATP). ATP represents an enduring disposition and not a specific act or behavior. The study variables, scale items used for measurements, and sources of the measurements are summarized in Table 5.

Table 5

Variables and Sources for Scale Items Used for Measurement

Variable	Measurement	Source
Elemental Traits		
Openness to Experience	How often do these characteristics describe how you see yourself in everyday life? ¹	Licata et al. (2003).
	• Creative • Imaginative • Find novel solutions • Original	
	How often do these characteristics describe how you see yourself in everyday life? ¹	
	• Precise • Efficient • Organized • Orderly	
Conscientiousness	How often do these characteristics describe how you see yourself in everyday life? ¹	Licata et al. (2003).
	• Precise • Efficient • Organized • Orderly	
	How often do these characteristics describe how you see yourself in everyday life? ¹	
	• Bashful • Introverted • Quiet • Shy	
Extraversion	How often do these characteristics describe how you see yourself in everyday life? ¹	Licata et al. (2003).
	• Tender hearted • Agreeable • Softhearted • Kind	
	How often do these characteristics describe how you see yourself in everyday life? ¹	
	• Moody • Temperamental • Emotional • Touchy	
Agreeability	How often do these characteristics describe how you see yourself in everyday life? ¹	Licata et al. (2003).
	• Tender hearted • Agreeable • Softhearted • Kind	
	How often do these characteristics describe how you see yourself in everyday life? ¹	
	• Moody • Temperamental • Emotional • Touchy	
Neuroticism	How often do these characteristics describe how you see yourself in everyday life? ¹	Licata et al. (2003).
	• Tender hearted • Agreeable • Softhearted • Kind	
	How often do these characteristics describe how you see yourself in everyday life? ¹	
	• Moody • Temperamental • Emotional • Touchy	

Table 5 Continued

	How often do these characteristics describe how you see yourself in everyday life? ¹	Licata et al. (2003).
Material Needs	• Enjoy buying expensive products • Like to own nice products more than most people • Acquiring valuable products is important to me • Enjoy owning luxurious products	
	How often do these characteristics describe how you see yourself in everyday life? ¹	Licata et al. (2003).
The Need for Arousal	• Drawn to experiences with an element of danger • Seek an adrenaline rush • Actively seek out new experiences • Enjoy taking more risks than others	
	How often do these characteristics describe how you see yourself in everyday life? ¹	Licata et al. (2003).
Physical/Body Needs	• Focus on my body and how it feels • Devote time each day to improving my body • Work hard to keep my body healthy • Feel making my body look good is important	
Compound Traits		
	The following statements pertain to preference for different or unique products. ²	Tian et al. (2001).
Consumer Need for Uniqueness	• An important goal when I buy merchandise is to find something that communicates my uniqueness • Often buy products to help shape a more unusual personal image • Products that are unusual assist me in establishing a distinctive image • When it comes to the products I buy I have often broken customs and rules • Often violated the understood rules of my social group regarding what to buy • Often gone against the understood rules of my social group regarding how certain products are properly used • Dislike products or brands that are customarily purchased by everyone • Once they become popular among the general public I give up wearing fashions I've purchased • The more commonplace a product or brand is among the general population, the less interested I am in buying it	

Table 5 Continued

Need for Learning	How often do these characteristics describe how you see yourself in everyday life? ¹ • Enjoy learning new things more than most people • People consider me to be intellectual² • Enjoy working on new ideas • Value information as the most important resource	Mowen (2000).
Altruism	How often do these characteristics describe how you see yourself in everyday life? ¹ • Have an altruistic nature • Give to others • Sacrifice my goals to help others • Selfless in giving time to others	Mowen & Sujan (2005).
Competitiveness	How often do these characteristics describe how you see yourself in everyday life? ¹ • Enjoy competition more than others • Feel it is important to outperform others • Enjoy testing my abilities against others' • Feel winning is extremely important	Mowen (2000).
Situational Traits	How often do these characteristics describe how you see yourself in everyday life? ¹ • Enjoy cultural immersion when I travel • Seek hands-on cultural encounters as I travel • Embrace the world celebrate its nuances as I travel • Interested in the traditions of indigenous cultural communities (e.g., festivals, rituals) as I travel • Try to visit local museum or art gallery as I travel • Travel should be about enriching knowledge	Adapted from Scott et al. (2003).
Interest in Cultural Experience	The following statements are about your fashion style. ² • Aware of fashion trends and want to be one of the first to try them • First to try new fashion people regard me as being a fashion leader • Important for me to be a fashion leader • Confident in my ability to recognize fashion trends • Clothes are one of the most important ways I have of expressing my individuality • Don't spend a lot of time on fashion-related activities	Goldsmith et al. (1993).
Fashion Leadership		

Table 5 Continued

Surface Trait

Thinking about the words “Dream it” read the list of travel experiences below. Please indicate the experiences you have dreamed of having.³

Developed for the current study adapting the “Dream it. Plan it. Do it.” motto of *National Geographic Adventure* magazine.

Adventure Travel Propensity (ATP)

- Bicycling across the USA
- Staying at a hot spring spa in Japan
- Visiting all the seven continents
- Getting off the beaten track
- Surf fishing on the beach at Cape Hatteras
- Camping in Glacier National Park
- Visiting a market in India
- Hiking in rural Ireland
- Shopping in Paris
- Making snow angels in Alaska
- Visiting the Seven Wonders of the World
- Running with the bulls in Spain
- Cage-diving with Great White Sharks
- Rock climbing on every continent
- Swimming in every ocean
- Rafting in the Grand Canyon
- Cliff diving in Jamaica
- Hiking in a rainforest
- Snorkeling the Great Barrier Reef
- Visiting the pyramids in Egypt
- Going on a safari in Africa
- Walking down the ancient paths of China
- Exploring the ancient civilization of Mayans
- Relaxing on the white beaches of Bora-Bora

Demographic Profile

- Gender
- Age
- Household composition
- Marital status
- Ethnicity
- Education
- Annual income
- Employment status

Adapted demographic questions from the U.S. Census (2000).

Travel Behavior Variables
Travel experience profile

- Passport ownership
- Past destination experience
- Past recreation and travel activity experience

Measures developed for this study. Destination and activity lists adapted from: CTC (2003); Jang, Morrison & O’Leary (2000); OIA (2006);

Table 5 Continued

		Pearce & Caltabiano, (1983); Sung et al. (1997); TIA (1998; 2006).
Travel intent profile	• Destination intentions • Recreation and travel activity intentions • Future travel intentions	Developed measures for this study to meet the needs of <i>National Geographic Adventure</i> magazine.
Pre-, during and post travel behavior	• Booking sources • Pre-trip activities • Communication types used before, during and after vacation travel • Technologies used before, during and after vacation travel • Lifestyle changes following a vacation trip • Past travel experience • Pre and post trip travel behavior	
Miscellaneous		
Cognitive Age	Please specify which of these age decades you FEEL you really belong to.⁴ • I FEEL as though I am in my • I LOOK as though I am in my • I DO most things as though I were in my • My recreation and travel INTERESTS are mostly those of a person in his/her	Barak (1987).

¹Nine-point scale ranging from 1 = *never* to 9 = *always*; ²Five-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*; ³Five-point scale ranging from 1 = *not at all* to 5 = *absolutely* whether respondent has dreamed of having the travel experience; ⁴Nine-point scale; *preteens, teens, twenties, thirties, forties, fifties, sixties, seventies, or eighties*.

Reliability Test

Reliability is a fundamental issue in psychological measurement (Nunnally & Bernstein, 1994). Scale reliability is the proportion of variance attributable to the true score of the latent variable. Measurement theory suggests that the relationships among items are logically connected to the relationships of items to the latent variable. If the items of a scale have a strong relationship to their latent variable, they will have a strong relationship to each other. A scale is internally consistent to the extent that its items are

highly intercorrelated. High inter-item correlations thus suggests that the items are all measuring (i.e., are manifestations of) the same phenomenon. Thus, a unidimensional scale or a single dimension of a multidimensional scale should consist of a set of items that correlate well with each other (DeVellis, 2003).

Cronbach's internal consistency reliability (expressed as a correlation coefficient ranging from 0 to 1), has been the most widely used reliability method in tourism studies for developing scales for measurement of personality traits. A score of 0.7 or higher is an acceptable reliability coefficient (Nunnally & Bernstein, 1994). Thus, for the current study reliability was computed using Cronbach Alpha Coefficient (Nunnally & Bernstein, 1994) and corrected item-to-total correlation where the recommended correlation is 0.30 and above (Parasuraman et al., 1988).

Overall, the composite scales exceeded the Cronbach Alpha Coefficient requirement of 0.70 (Cronbach, 1951). With the exception of the four-item "need for learning scale" and the four-item dream travel experience factor "traditional outdoor adventure experiences" which both had a Cronbach Alpha Coefficient of 0.66. Consistent with Mowen (2000), the need for learning measure was modified, deleting the item "people perceive me to be intellectual", resulting in an increase of the Cronbach Alpha Coefficient to 0.72. Table 6 provides a summary of the Cronbach Alpha Coefficients for composite scales used in this study.

Table 6

Cronbach Alpha Coefficients for Composite Scales Used in this Study

Variable	Measurement Items	Cronbach Alpha Coefficient
Elemental Traits		
Openness to Experience	Creative Imaginative Find novel solutions	0.90
Conscientiousness	Original Precise Efficient Organized	0.87
Extraversion ¹	Orderly Bashful Introverted Quiet Shy	0.88
Agreeability	Tender hearted Agreeable Softhearted Kind	0.83
Neuroticism	Moody Temperamental Emotional Touchy	0.81
Material Needs	Enjoy buying expensive products. Like to own nice products more than most people. Acquiring valuable products is important to me. Enjoy owning luxurious products.	0.90
Need for Arousal	Drawn to experiences with an element of danger. Seek an adrenaline rush. Actively seek out new experiences. Enjoy taking more risks than others.	0.90
Physical/Body Needs	Focus on my body and how it feels. Devote time each day to improving my body. Work hard to keep my body healthy. Feel making my body look good is important.	0.88
Compound Traits		
Competitiveness	Enjoy competition more than others. Feel it is important to outperform others. Enjoy testing my abilities against others'. Feel winning is extremely important.	0.94
Altruism	Have an altruistic nature. Give to others. Sacrifice my goals to help others. Selfless in giving time to others.	0.84
Need for Learning ²	Enjoy learning new things more than most people. People consider me to be intellectual. ² Enjoy working on new ideas. Value information as the most important resource.	0.72

Table 6 Continued

Situational Traits		
Interest in Cultural Experience	Enjoy cultural immersion when I travel.	
	Seek hands-on cultural encounters as I travel.	
	Embrace the world celebrate its nuances as I travel.	
	Interested in the traditions of indigenous cultural communities (e.g., festivals, rituals) as I travel.	0.89
	Try to visit local museum or art gallery as I travel.	
Need for Uniqueness	Travel should be about enriching knowledge.	
	An important goal when I buy merchandise is to find something that communicates my uniqueness.	
	Often buy products to help shape a more unusual personal image.	
	Products that are unusual assist me in establishing a distinctive image.	
	When it comes to the products I buy I have often broken customs and rules.	
	Often violated the understood rules of my social group regarding what to buy.	0.77
	Often gone against the understood rules of my social group regarding how certain products are properly used.	
	Dislike products or brands that are customarily purchased by everyone.	
	Once they become popular among the general public I give up wearing fashions I've purchased.	
	The more commonplace a product or brand is among the general population, the less interested I am in buying it.	
Fashion Leadership	Aware of fashion trends and want to be one of the first to try them.	
	First to try new fashion; therefore, many people regard me as being a fashion leader.	
	Important for me to be a fashion leader.	0.89
	Confident in my ability to recognize fashion trends.	
	Clothes are one of the most important ways I have of expressing my individuality.	
	Don't spend a lot of time on fashion-related activities.	
Surface Trait		
Ultimate Destination Experiences (ATP)	Visiting all the seven continents.	
	Visiting the Seven Wonders of the World.	
	Visiting the pyramids of Egypt.	
	Going on safari in Africa.	0.86
	Walking down the ancient paths of China.	
Tropical Adventure Experiences (ATP)	Visiting a market in India.	
	Staying at a hot spring spa in Japan.	
	Snorkeling the Great Barrier Reef.	
	Hiking in a rainforest.	0.77
	Relaxing on the white beaches of Bora Bora.	
Extreme Adventure Experiences (ATP)	Exploring the ancient civilizations of Mayans.	
	Cliff diving in Jamaica.	
	Cage diving with Great White Sharks.	0.76
	Running with the Bulls in Spain.	
	Rock climbing on every continent.	

Table 6 Continued

Traditional Outdoor Adventure Experiences (ATP)	Camping in Glacier National Park.	0.66
	Rafting in the Grand Canyon.	
	Making snow angels in Alaska.	
	Getting off the beaten track.	
Miscellaneous Cognitive Age	I FEEL as though I am in my.	0.94
	I LOOK as though I am in my.	
	I DO most things as though I were in my.	
	My recreation and travel INTERESTS are mostly those of a person in his/her.	

¹Operationalized as introversion; ²Four-item need for learning scale resulted in a Cronbach Alpha Coefficient of 0.66. Removal of the item “people perceive me to be intellectual” resulted in a Cronbach Alpha Coefficient of 0.72.

Data Analysis

Several statistical methods were used in data analyses (Table 7). First, descriptive statistics were used to analyze demographic variables (i.e., gender age, marital status, household composition, ethnicity, education, income and employment status), travel experience (i.e., passport ownership, past destination and recreation and travel activity experience); travel intent (i.e., destination and recreation and travel activity intentions), and pre-, during and post travel behavior (i.e., booking sources, pre-trip activities, communication types used, technologies used before, during and after vacation travel, and lifestyle changes following a vacation trip). Next, the Guttman Scaling Procedure was employed to categorize respondents in soft/hard categories as a context for understating the demographic and travel behavior characteristics of the study sample. Third, factor analysis was used to identify the underlying dimensions of ATP, an enduring disposition to behave. A series of appropriate tests were performed to examine necessary assumptions before applying main statistical techniques. Lastly, building on the model developed by Mowen (2000), a series of hierarchical regressions were performed

to explore the relationships among variables. Data were analyzed using the Statistical Package for Social Sciences (SPSS 16.0).

Table 7

Analysis Procedures

Statistical Methods	Objectives
Descriptive Analysis	Explore the overall profile of the samples and identify which motive items were regarded as most important or unimportant.
Cross-tabulation/Chi-square	Investigate the profiles of the identified travel experience groups.
Independent Sample <i>t</i> -Test	Examine the difference in the identified motivational patterns between travel experience groups.
Guttman Scaling Procedure	Categorize respondents in soft/hard categories as a context for understating the demographic and travel behavior characteristics of the study sample.
Factor Analysis	Identify the underlying dimensions of ATP, an enduring disposition to behave.
Hierarchical Regression	Explore the relationships among variables.

Descriptive statistics. To explore the overall profile of the samples and identify which motive items were regarded as most important or unimportant descriptive statistics were used.

Cross-tabulation/Chi-square. Cross tabulation/Chi-square was used to assess the relationship between two categorical variables. Cross tabulation with Chi-square test statistics was used to identify significant differences between the two traveler groups (soft/hard adventure) for demographic and travel related behavior variables of categorical measurement.

Causality is not assumed in cross-tabulations; the only statistical requirement is that the minimum expected cell frequency for the table must be five or more. From a practical point of view, the only limitation on the use of cross-tabulation is that there should be a relatively large sample size. Cross-tabulation is a way to show how much the frequency or percentage distributions of one variable differ according to various levels of another variable (Alreck & Settle, 2004). The Chi-square statistic computed from the cross-tabulation table indicates the statistical significance of the relationship between the two variables. The Chi-square statistic and the significance probability associated with it are based on the amount of difference between the expected values for each cell and the actual count.

Independent sample *t*-test. The independent sample *t*-test procedure compares means for two groups (SPSS, 2002). This statistical method can test two means with homogenous and heterogeneous variances. The independent sample *t*-test was used to identify significant differences between the two traveler groups (soft/hard adventure). Tabachnick and Fidell (1989) described four main assumptions for the independent sample *t*-test:

- (1) The data must be parametric, that is, they should be measured on an interval or ratio scale.
- (2) The samples should be randomly selected from the population, so that the results of the *t* test can be generalized from the sample to the population.
- (3) The two samples should come from populations which have approximately the same variance (i.e., homogeneity of variance assumption). Levene's test of homogeneity of variances should be used to test this assumption.

- (4) The scores of the dependent variable should come from the population which is normally distributed (i.e., normality assumption).

Guttman Scaling: Distinguishing Soft and Hard Adventure Travelers

Mowen's theory advocates a hierarchical structure to personality traits. The traveler type hierarchy from mass travelers to hard adventure complements the personality hierarchy proposed by Mowen (2000). Guttman scaling was used to create the hierarchical structure for traveler type to parallel Mowen's hierarchy. To initialize the effort, tourism travel behavior experts were engaged to complete an exercise to identify places and activities and determine how they aligned with a hierarchy for mass, soft, and hard travel. The soft/hard adventure typology has been shown to be useful to both academics and practitioners alike. Thus, an effort was made to group the study respondents into soft/hard adventure traveler groups using a novel application of the approach known as Guttman scaling. A description of the procedure follows.

The main purpose of Guttman scaling, also known as cumulative scaling or scalogram analysis, is to establish a one-dimensional continuum for a concept (Trochim, 2005). The concept of interest in the present study is adventure travel. The Guttman scaling procedure was used to categorize respondents according to their past vacation travel experience using activities and destinations. Three categories of tourist types were identified: (1) *mass* tourist, (2) *soft adventure* tourist, or (3) *hard adventure* tourist.

Used in psychological and sociological research, a Guttman scale is a measurement instrument developed using the scaling technique designed by Louis Guttman in 1944. Guttman scaling is a procedure used to assess unidimensionality

(Guttman, 1950), which is also seen as an important part of construct validity (Ekinci & Riley, 1999; Hattie, 1985). The model works best for constructs that are hierarchical and highly structured such as social distance, organizational hierarchies, and evolutionary stages (Maslow, 1954). Previous recreation and tourism literature suggests that recreation and travel behavior follows a hierarchy (Pearce & Lee, 2005; Walle, 1997), thus Guttman scaling may be useful in establishing a one-dimensional continuum for the concept of interest in this dissertation, adventure travel.

Guttman's insight was that for unidimensional scales, those who agree with a more extreme test item will also agree with all less extreme items that preceded it (Guttman, 1950). Put more formally, one would like to be able to predict item responses perfectly knowing only the total score for the respondent. The object is to find a set of items that perfectly matches this pattern. In practice, we would seldom expect to find this cumulative pattern perfectly. Scalogram analysis is used to examine how closely a set of items corresponds with this idea of cumulativeness. The procedure orders both items and subjects with respect to the underlying cumulative dimension (McIver & Carmines, 1981). Researchers have applied the Guttman scale infrequently in scaling, perhaps in part because of the rather tough requirements for such a scale to be valid. Most important, the scale items must clearly be ordered in a way that they are, ordinally speaking, progressively more difficult to meet. However, given the proposed nature of travel progressing from mass tourism to hard adventure tourism, this may indeed prove a meaningful application of the Guttman scale.

Trochim (2005) provided a succinct list of the steps required in constructing a Guttman scale: define the focus, develop the items, rate the items, develop the cumulative scale, and administer the scale.

The first step is to define the focus of the scale. That is, the topic or issue that the scale will be developed to examine. In this dissertation the focus is adventure travel. As discussed in Chapter II, it is posited that individual travel behavior may evolve over time from participating initially in mass recreation and travel activities to a higher level, participating in soft adventure recreation and travel activities, which may then be followed by progressing to an even higher level at the top of the hierarchy, participating in hard adventure recreation and travel activities.

Mass travel is defined as packaging and selling standardized leisure services at fixed prices to a mass clientele (Poon, 1993). The soft/hard typology was developed to explain the diversity of behavior inherent in the adventure travel market. The typology is based on a continuum reflecting differing degrees of challenge, uncertainty, setting, familiarity, personal abilities, intensity, duration and perceptions of control (Lipscombe, 1995). At one end of the continuum is soft adventure, which is defined as activities with a perceived risk but with actual low levels of real risk, requiring minimal commitment and beginning skills. The continuum progresses toward hard adventure, which is defined as activities with high levels of risk, requiring intense commitment and advanced skills (Hill, 1995). In sum, the focus of the present dissertation is to develop a scale capable of differentiating between the three traveler types: mass, soft adventure, and hard adventure travelers.

The second step in Guttman Scaling is to develop a list of the items (e.g., objects, attitudinal statements, behaviors) that will comprise the scale. In the present study, two lists of items were developed to differentiate among the three types of travel behavior. The first list consisted of tourism destinations, specifically continents/regions that a person might visit, while the second consisted of recreation and tourism activities that a person might engage in while traveling.

Based on a review of the recreation, tourism, and adventure literature an initial list of continents/regions and recreation and travel activities was developed (CTC, 2003; Jang, Morrison, & O'Leary, 2000; OIA, 2006; Pearce & Caltabiano, 1983; Sung, Morrison, & O'Leary, 1997; TIA, 1998; 2006). In addition, a panel interview of outdoor recreation and adventure industry leaders was consulted to identify potential items and to ensure that current industry trends and changes were represented.

The next step in constructing a Guttman scale is to have a panel of judges rate each item in terms of how well it represents the topic addressed in the study. In this study, ten tourism professors were identified and invited to participate in rating the items (Appendix H: Expert Review Email Request). Seven expert judges agreed to participate in rating the continents/regions and the recreation and travel activities in terms of how well the items reflected the concepts of mass, soft and hard adventure travel (Appendix I: Expert Judge Survey).

To understand the context in which experts categorized the items they were also asked to define, in their own words, mass tourism, soft adventure tourism, and hard adventure tourism. No two definitions were exactly the same; however, similar themes emerged for each of the three concepts. The definitions provided indicated that experts

viewed mass tourism as appealing to the larger population with a focus on familiar destinations and activities. In contrast, soft and hard adventure tourism were seen as appealing to smaller groups with a focus on physical activities involving less familiar (exotic, novel, extreme) destinations and more challenging forms of activity (Appendix J: Expert Judge Definitions).

Expert judges indicated the type of travel (mass, soft, or hard) they felt best represented the image of the destination and the image of the recreation and travel activity. Items were categorized according to travel type based on the highest percentage level of agreement among judges. Only items with greater than fifty-percent agreement were included in the final list. Based on this approach, a total of six continents/regions were categorized as mass tourism destinations, six continents/regions were categorized as soft adventure tourism destinations, and five continents/regions were hard adventure tourism destinations (Table 8).

Table 8

Results of Expert Judge Destination Categories

Destination	%
Mass tourism	
Western Europe	100.0 ¹
North America	85.7
Central Europe	71.4
Caribbean	57.1
Eastern Europe	57.1
Mexico	57.1
Soft adventure tourism	
Australia	71.4
South Pacific	71.4
Middle East	57.1
New Zealand	57.1
North Asia	57.1
South-Southeast Asia	57.1
Hard adventure tourism	
Antarctica	100.0
Arctic	85.7
Africa	71.4
Central America	57.1
South America	57.1

¹Percent agreeing that the item represented the destination type.

The same approach employed to categorize continents/regions was used to categorize the recreation and travel activities. A total of 20 recreation and travel activity items were categorized as mass tourism recreation and travel activities, 13 items as soft adventure tourism recreation and travel activities, and 4 items as hard adventure tourism recreation and travel activities as shown in (Table 9).

Table 9

Results of Expert Judge Recreation and Travel Activity Categories

Activity	%
Mass tourism	
Attending concert/play/dance	100.0 ¹
Attending local festivals/fairs	100.0
Attending spectator sporting events	100.0
City tours/short guided excursions	100.0
Dining	100.0
Golfing/tennis	100.0
Night life/visiting night clubs/dancing	100.0
Shopping	100.0
Swimming/sunbathing/beach activities	100.0
Visiting casinos/gambling/gaming	100.0
Visiting friends or relatives	100.0
Visiting gardens/botanical gardens	100.0
Visiting museums/galleries	100.0
Visiting places of historical interest	100.0
Visiting spas	100.0
Visiting theme/amusement parks	100.0
Visiting zoos	100.0
Scenic driving	85.7
Visiting local/state/national parks	71.4
Getting to know local people	57.1
Soft adventure tourism	
Skiing/snowmobiling	100.0
Backpacking	85.7
Hiking	85.7
Hunting/fishing	85.7
Mountain biking	85.7
Observing wildlife/birdwatching	85.7
Scuba diving/surfing	85.7
Volunteering on vacation	85.7
Waterskiing/snorkeling	85.7
Kayaking/canoeing	71.4
Bicycle riding	57.1
Boating	57.1
Camping	57.1
Hard adventure tourism	
Climbing mountain/rock/ice	100.0
Cave exploring/spelunking	71.4
Safaris	57.1
Trekking	57.1

¹ Percent agreeing that the item represented that travel type.

The next step in Guttman scaling is to develop the cumulative scale. This step, which represents the essence of Guttman scaling, involves ordering the items to create a cumulative scale. In the present study, the lowest level of the scale should refer to mass tourism, the next highest level soft adventure tourism, and the third to the hard adventure tourism. Thus, for the continent/region items, respondents at the lowest level should have experience visiting only continents/regions associated with mass tourism. Respondents at the next level should have experience visiting continents/regions associated with mass tourism, plus those associated with soft adventure tourism. Finally, respondents at the highest level should have experience visiting continents/regions in all three categories. A similar cumulative pattern should be observed for the activity items. If a response pattern does not match with this profile, then errors are present.

A score was computed for positive responses to past experience with continent/regions (Table 10) and recreation and travel activities (Table 11) in each tourism type, with *mass* positioned at the bottom of the scale, *soft adventure* at the second level and *hard adventure* at the top. Items were re-coded into a new variable to test the scalability. Each respondent was assigned a scale score ranging from '1' to '3' based on a positive response in each tourism type category.

Table 10

Results of Cumulative Scale for Destination Categories (n = 339)

Scale Pattern	# Positive Responses	Frequency	Proportion of Total	Cumulative Proportion
"Perfect" Scale Patterns:				
100 ¹	1	123	.363	.363
110	2	62	.183	.546
111	3	97	.286	.832
Error Patterns:				
010	1	1	.003	.003
101	2	55	.162	.165
000	0	1	.003	.168

¹ For each pattern, the first digit refers to Mass Travel, the second to Soft Adventure Travel, and the third to Hard Adventure Travel; "1" representing passing on that item and "0" representing not passing. Thus, the pattern of 100 refers to those that passed on the Mass Travel items but did not pass on the Soft or Hard Adventure items.

Total errors = 57

CR = 1 (57)/339

CR_{ge} = .832

Table 11

Results of Cumulative Scale for Activity Categories (n = 337)

Scale Pattern	# Positive Responses	Frequency	Proportion of Total	Cumulative Proportion
"Perfect" Scale Patterns:				
100 ¹	1	13	.039	.039
110	2	117	.347	.386
111	3	203	.602	.988
Error Patterns:				
010	1	2	.006	.006
011	2	1	.003	.009
101	2	1	.003	.012

¹ For each pattern, the first digit refers to Mass Travel, the second to Soft Adventure Travel, and the third to Hard Adventure Travel; "1" representing passing on that item and "0" representing not passing. Thus, the pattern of 100 refers to those that passed on the Mass Travel items but did not pass on the Soft or Hard Adventure items.

Total errors = 4 errors

CR = 1.0 - (4)/337

CR_{ge} = .989

The Guttman scaling procedure requires an ordinal (hierarchical) and cumulative structure in a scale, with the unidimensionality of the scale determined by checking the response patterns in the data. Perfect scales rarely occur, thus using the perfect scale matrix, the cumulative property of the scales is checked and errors are counted. Guttman suggested that the coefficient of reproducibility (CR) should be used to assess the number of errors and the degree of scalability in such cases. Also, the CR score must be .90 or higher to claim that the dimension is scaleable (or that the scale is unidimensional). The .90 criteria indicates that the scale contains a maximum of 10% error. The formula for measuring CF is the following (McIver & Carmines, 1981): $CR = 1 - \text{Total Error} / \text{Total Responses}$ and $CR = 1 - \text{Total Error} / (\text{Items} \times \text{Respondents})$.

The current study employed the Goodenough-Edwards technique (Edwards, 1957) to compute the CR, and will be referred to as CR_{ge} . In this technique, error is assigned to every observed response that does not correspond to the ideal scale pattern predicted by the total score with CR_{ge} . The result using the Goodenough-Edwards concept of error, means that the CR reflects the degree to which observed response patterns deviate from ideal response patterns. Retaining Guttman's original specification that a scale is interpretable if it reflects 10% or less error, the scalability criterion now becomes $CR_{ge} \geq .90$.

Results of the scalogram analysis for the recreation and travel activities met the scalability criterion ($CR_{ge} = .989$) and thus convergent categorization was achieved with these experts. However, results for continents/regions did not meet the scalability criterion ($CR_{ge} = .832$) and therefore continents/regions were not used in determining

traveler type. The reason may be that destination is a subjective concept and thus categorizing a destination according to level of “adventure” is less applicable.

The final step is to administer the scale. Each scale item has a scale value associated with it (obtained from the scalogram analysis). In the current study each respondent was assigned a scale score ranging from ‘1’ to ‘3’ based their positive response pattern to recreation and travel activities. Error patterns were categorized into the highest level of activity experienced. For instance, if a respondent indicated not having experienced a mass activity, however they indicated a hard activity the respondent was categorized as a hard adventure traveler. The current study did not examine “non-travelers,” therefore respondents who indicated no activity experience were not included in the analyses.

Exploratory Factor Analysis

According to Hair, Anderson, Tatham, and Black (1998) “factor analysis is a generic name given to a class of multivariate statistical methods whose primary purpose is to define the underlying structure in a data matrix” (p. 90). Exploratory factor analysis is an essential part of psychometric testing and validation. This analysis explores whether questionnaire items can be clustered clearly and meaningfully into small groups or factors. Tabachnick and Fidell (1989) described five assumptions that should be considered prior to conducting factor analysis:

- (1) The sample size is large enough to provide trustworthy results. Tabachnick and Fidell (1989) proposed as a rule of thumb to have at least five participants per item.
- (2) The data should be either interval or ratio.

- (3) All items and all linear combinations of items should be normally distributed.
- (4) Item correlations should be of a relatively large size. If the correlations are very small (i.e., below .30), then it is questionable whether the items are similar enough to be grouped together under some common factors. Bartlett's test of sphericity was used to examine whether the correlations were sufficiently large to warrant a factor analysis.
- (5) Relationships between pairs of items should be linear.

The objective of rotation methods is to simplify the rows and columns of the factor matrix – simplifying the rows maximizes a variable's loading on a single factor and simplifying the columns reduces the number of “high” loadings – to facilitate interpretation (Hair et al., 1998). The VARIMAX rotation method gives a clearer separation of the factors. Factor analysis was used to discover the underlying dimensions of ATP. Results of the factor analysis are discussed in Chapter IV.

Hierarchical Regression

Hierarchical multiple regression is a variant of the basic multiple regression procedure where the researcher decides not only how many predictors to enter but also the order in which they enter. The order of the entry is based on logical or theoretical considerations (Garson, 2008). As described by Cohen and Cohen (1975), hierarchical regression is appropriate when the independent variables can be ordered with regard to their causal priority. In addition, they noted that the procedure allows a unique partitioning of the total variance accounted for in the dependent variable when correlated independent variables are present. Pedhazur (1982) provided an even more stringent guideline by stating that a strong theoretical foundation must be present. Tabachnick and

Fidell (1989) described the assumptions that should be considered prior to conducting a hierarchical multiple regression analysis:

- (1) Sample size. The ratio of participants to independent variables should be at least 5:1 and ideally 20:1.
- (2) The data should be parametric, measured on interval or ratio scale.
- (3) Independence. There should be no relationship between the score of the dependent variable in the different groups.
- (4) Homogeneity of variances. The groups should come from populations which have equal or nearly equal variances in the scores of the dependent variables. The Levene test is used to check this assumption.
- (5) Multicollinearity. The independent variables should not be very highly correlated ($r > .90$) or perfectly correlated (i.e., $r = 1$). The first condition is called multicollinearity; the second condition is called singularity. Both conditions indicate that the independent variables contain almost identical information and, therefore, some of them should be deleted.
- (6) Normality. The scores of the dependent variables in each group should come from populations which are normally distributed. Linearity suggests that residuals have a straight line relationship with predicted variables scores. Homoscedasticity assumes that the variance of the residuals about predicted dependent variables scores are the same for all predictors. Outliers, linearity and homoscedasticity assumptions can be checked through examination of residuals scatterplots (Pallant, 2008).

(7) Outliers. All univariate and multivariate outliers should be deleted or transformed. Outliers can be identified from the standardized residual plot (Tabachnick & Fidell, 1989)

With each model tested in this study, the following statistics were reported:

- Standardized beta coefficients, which through significance tests determine whether a specific predictor variable is significantly contributing to the prediction.
- The *F*-distribution, which through significance tests indicates that a combination of specific independent variables predicts the dependent variable.
- *R* Square (R^2) which indicates what proportion of the variance in the dependent variable can be explained by a combination of specific independent variables.

In the present research, the 3M Model provides the theoretical justification for the hierarchical ordering of variables. To test the eight proposed research hypotheses, hierarchical regression was employed.

Statistical Procedures of Data Analysis

This chapter provided the methodology of this study. To investigate relationships of the constructs in the model of this study, eight hypotheses were proposed in association with the research questions presented in Chapter I.

The research method design, including sampling frame, sample selection, data collection, and the development of the final survey, was discussed and appropriate statistical analyses were presented. The discussion of survey results, data analyses, and

hypothesis testing are presented in Chapter IV. The overall statistical analysis included: (1) demographic profile of the sample; (2) travel experience profile; (3) travel intentions profile (4) pre- and post-travel behavior profile; (5) descriptive statistics of the four personality trait levels (elemental, compound, situational, and surface); (6) factor analysis to determine underlying factors of the surface trait ATP; and (7) hierarchical regressions to test the hypotheses.

CHAPTER IV

RESULTS

The problem of this study was to examine the underlying psychological traits that contribute to the surface trait adventure travel propensity (ATP), by identifying the motivation and personality schemas of adventure travelers. The research also tested the usefulness of the 3M Model as an organizing structure for understanding how personality traits impact behavior. A number of hypotheses were stated regarding personality traits that influence ATP. In this chapter, the following topics will be reported: (1) demographic profile of the sample (gender age, marital status, household composition, children living in household, ethnicity, education, income and employment status); (2) travel experience profile (passport ownership, number of domestic/international trips); number of destinations visited; destinations experienced (grouped according to mass, soft adventure, and hard adventure destinations); number of activities experienced; travel activity experience (grouped according to mass, soft adventure, and hard adventure activities); (3) travel intentions profile (number of domestic/international vacations respondents intend to take; number of continents/regions respondents plan to visit); destination intentions (grouped according to mass, soft adventure, and hard adventure destinations); travel activity intentions (grouped according to mass, soft adventure, and hard adventure activities); number of activities plan to experience (grouped according to mass, soft adventure, and hard adventure activities); destination experience and intentions combined (grouped according to mass, soft adventure, and hard adventure destinations); activity experience and intentions combined (grouped according to mass, soft adventure, and hard adventure activities); (4) pre- and post-travel behavior profile (trip

planning; sources used to book or reserve trips; helpfulness of sources; pre-trip activities, communication types used, technologies used before, during and after vacation travel, helpfulness of technology, and lifestyle changes following a vacation trip); (5) descriptive statistics of the four personality trait levels (elemental, compound, situational, and surface); (6) factor analysis to determine underlying factors of the surface trait ATP; and (7) hierarchical regressions to test the hypotheses.

Demographic Profile

Respondents' demographic characteristics including gender, age, marital status, household composition (number of adults and children under 18 living in the household), education, income, employment status and geographic location, were gathered to understand the descriptive profile of respondents. The profile of the study respondents is shown for all respondents as well as for the two subgroups "Soft Adventure Traveler" (SAT) and "Hard Adventure Traveler" (HAT). As described in Chapter III, SAT and HAT subgroups were formed using Guttman scaling procedures. As previously discussed, according to the soft-hard continuum, individual traveler behavior may evolve over time from traveling to mass destinations and taking part in mass recreation and travel activities, then progressing to the next higher level, soft adventure destinations and recreation and travel activities. Participation in soft adventure destinations and recreation and travel activities may then progress to the level at the top of the hierarchy, participating in hard adventure recreation and travel activities and travel to hard adventure destinations (Millington et al., 2001). Therefore the SAT and HAT subgroups discussed have evolved from mass travelers to soft adventure travelers, and in some cases to hard adventure travelers. Characteristics of the entire sample, as well as characteristics

for each of the subgroups, referred to as SAT and HAT, are discussed in the following section.

As shown in Table 12, the majority of respondents were male (58%) for the entire sample as well as within the traveler type subgroups. However, in the HAT group males' outnumbered females by twenty-five percent. Overall respondents were between the ages of 55 and 64 (28%), followed closely by the 45-54 age group (26%). Respondents in the SAT group were older, with most in the 55-64 (32%) or the 65 years and older group (26%). In contrast, most of the HAT group were in either the 45-54 age group (30%) followed by the 55-64 age group (26%). Consequently, the mean age of for the HATs was six years younger than the SAT group.

The majority of respondents were married (65%) (66% for the SATs and 65% for the HATs) and roughly eight out of ten respondents in both groups reported living in households consisting of no more than two people (84% SATs and 79% HATs), with a similar number indicating that they currently had no children under 18 years of age living at home (83% SATs and 72% HATs). Almost all respondents, roughly nine out of ten, reported their ethnicity as white (95% SATs and 93% HATs).

Table 12

Demographic Profile of Respondents

Characteristics	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 118) %	All Travelers (<i>N</i> = 323) %	<i>x</i> ²	<i>Sig.</i>
Gender					
Male	62.4	50.8	58.2	4.14 ¹	.042
Female	37.6	49.2	41.8		
Age	(<i>n</i> = 202) %	(<i>n</i> = 119) %	(<i>N</i> = 321) %		
18-34	16.3	10.1	14.0	22.25 ²	.000
35-44	18.8	11.8	16.2		
45-54	29.7	20.2	26.2		
55-64	26.2	31.9	28.3		
65 and up	8.9	26.1	15.3		
Marital Status	(<i>n</i> = 205) %	(<i>n</i> = 119) %	(<i>N</i> = 324) %		
Single	18.5	15.1	17.3	3.60 ²	.463
Married	64.9	66.4	65.4		
Widowed	2.4	5.9	3.7		
Divorced	7.8	8.4	8.0		
Living w/significant other	6.3	4.2	5.6		
Household Composition	(<i>n</i> = 205) %	(<i>n</i> = 118) %	(<i>N</i> = 323) %		
1 adult living in household	21.0	16.9	19.5	2.63 ³	.453
2 adults	58.5	66.9	61.6		
3 adults	16.6	11.9	14.9		
4 or more adults	3.9	4.2	4.0		
Children Under 18 Living in Household	(<i>n</i> = 205) %	(<i>n</i> = 119) %	(<i>N</i> = 324) %		
No children living in household	71.7	83.2	75.9	5.59 ³	.002
1 child	15.6	8.4	13.0		
2 children	9.3	5.9	8.0		
3 or more children	3.4	2.5	3.1		
Ethnicity	(<i>n</i> = 203) %	(<i>n</i> = 118) %	(<i>N</i> = 321) %		
White	95.1	93.2	94.4	6.05 ⁴	.301
Black/African American	0.5	0.0	0.3		
Asian	1.5	0.8	1.2		
Hispanic	2.0	5.1	3.1		
Native Hawaiian/Other Pacific Islander	0.0	0.8	0.3		
American Indian/Alaska Native	1.0	0.0	0.6		

¹ *df* = 1; ² *df* = 4; ³ *df* = 3; ⁴ *df* = 5.

A summary of respondents' education, income, and employment status are provided in Table 13. The majority of respondents hold an advanced degree (37%) or four year college degree (35%). More than three-quarters (78%) of the HAT group have an advanced degree or four year college degree. For the SAT traveler type group more than half (61%) have an advanced degree from a four-year college or an advanced degree such as MBA, MS or PhD. With regard to household income (i.e., 2005 gross household income), most respondents reported earning between \$100,000 and \$149,999. In the case of traveler type groups, five out of ten in each group reported earning \$100,000 or more (46% SAT and 56% HAT); however, the proportion reporting the lowest income level of under \$35,000 was higher in the SAT group (12%) compared to the HAT group (4%), while the proportion earning the highest income level of \$250,000 or more was higher in the HAT group (12%) compared to the SAT group (6%). In terms of employment status, while most reported working full-time, the proportion of full-time workers was slightly lower in the SAT group (56%) compared to the HAT group (67%) and proportion of retirees was higher in the SAT group (29%) when compared to the HAT group (13%).

Table 13

Education, Income, and Employment Profile of Respondents

Characteristics	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 324) %	χ^2	Sig.
Education					
Some high school or high school degree	2.9	12.6	6.5	17.17 ¹	.002
Some college	11.2	15.1	12.7		
Associate degree, 2 year college	7.8	10.9	9.0		
College degree, 4 year college	40.5	26.1	35.2		
Advanced degree	37.6	35.3	36.7		
Household Income - 2005 Gross	(<i>n</i> = 186) %	(<i>n</i> = 105) %	(<i>N</i> = 291) %		
Under \$35,000	4.3	12.4	7.2	10.44 ²	.107
\$35,000-\$49,999	6.5	9.5	7.6		
\$50,000-\$74,999	17.2	14.3	16.2		
\$75,000-\$99,999	16.1	18.1	16.8		
\$100,000-\$149,999	28.5	28.6	28.5		
\$150,000-\$199,999	12.9	7.6	11.0		
\$200,000 or more	14.5	9.5	12.7		
Employment Status	(<i>n</i> = 203) %	(<i>n</i> = 119) %	(<i>N</i> = 322) %		
Working full-time	67.0	55.5	62.7	13.79 ³	.017
Working part-time	10.3	8.4	9.6		
Going to school	3.4	2.5	3.1		
Homemaker	3.0	3.4	3.1		
Retired	13.3	29.4	19.3		
Other	3.0	0.8	2.2		

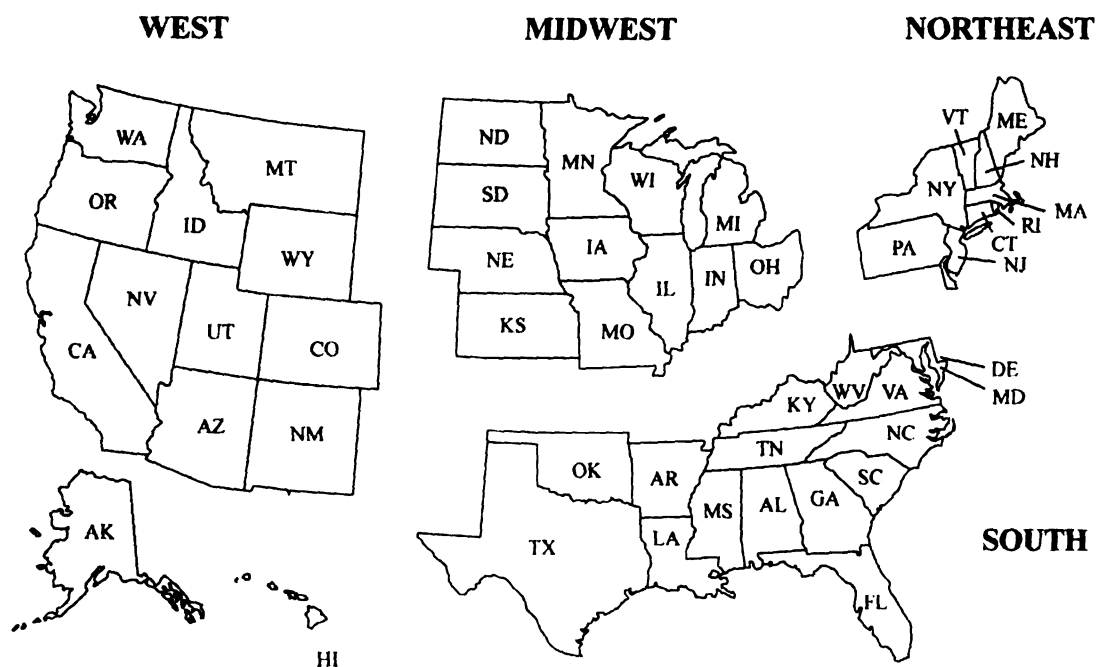
¹ *df* = 4; ² *df* = 6; ³ *df* = 5.

Figure 3 shows the U.S. geographic location of respondents. The four regions replicate those used by the U.S. Census (2000). Almost one-third of all respondents were from the West region (30%), while only 18% were from the Northeast region. Similarly, the greatest proportion of respondents for both the SAT and HAT groups were from the West region (SATs 31% and HATs 30%) and the lowest were from the Northeast region (SATs 14% and HATs 20%). A decade later, results are similar to those reported by TIA in the *Adventure Travel Report* (1998) where adventure travel was more popular among

people who lived in the West region. Accessibility, exposure, and diverse natural resources may play a role in greater adventure activity participation by respondents residing in the West region.

Figure 3

Response Rate According to Geographic Location and Traveler Type¹



WEST

ALL RESPONDENTS	31%
Soft Adventure Travelers	29%
Hard Adventure Travelers	30%

NORTHEAST

ALL RESPONDENTS	14%
Soft Adventure Travelers	20%
Hard Adventure Travelers	18%

MIDWEST

ALL RESPONDENTS	25%
Soft Adventure Travelers	24%
Hard Adventure Travelers	24%

SOUTH

ALL RESPONDENTS	29%
Soft Adventure Travelers	27%
Hard Adventure Travelers	28%

¹ Percentage values may not sum to 100% owing to rounding.

Travel Experience Profile

To develop an understanding of adventure travelers, previous vacation travel experience was examined. Information regarding passport ownership and the destinations and activities respondents have experienced in the past are provided. The following key vacation travel experience variables were explored: passport ownership; average number of domestic and international trips taken in the past three years; average number of destinations (continents/regions) visited in the past three years; destinations (continents/regions) experienced during lifetime (grouped according to mass destinations, and soft and hard adventure destinations); average number of activities experienced during lifetime ; and activities experienced during a lifetime (grouped according to mass activities, and soft and hard adventure activities).

Passport ownership. The majority of respondents, about eight out of ten, currently hold a valid U.S. Passport. Three-quarters of SATs, and slightly more HATs (83%), hold a valid U.S. Passport. There were no significant differences between the traveler type groups and valid U.S. Passport ownership.

The average age respondents applied for their first passport was 28 years of age ($M = 28.2$, $SD = 13.41$). The average for HATs was 26 years of age ($M = 26.3$, $SD = 11.57$) and for SATs the average was 32 ($M = 31.9$, $SD = 15.82$). An independent sample t -test was used to examine differences between traveler type groups and the age they first applied for a passport. Significant differences were found between groups, $t(246) = -3.22$, $p < .01$, in particular HATs had applied an average of five years earlier than SATs.

Number of domestic and international trips. Data were collected to measure respondents domestic (U.S. or Canada) and international vacation travel experience during the past three years. The average number domestic vacation trips respondents had taken in the last three years was seven ($M = 6.61$, $SD = 13.29$) and the average number of international vacations was three ($M = 3.47$, $SD = 13.27$). The averages were different between traveler type groups. HATs had taken an average of six ($M = 6.27$, $SD = 10.14$) domestic trips and an average of three ($M = 2.82$, $SD = 9.76$) international trips. Whereas, the SAT traveler group had taken an average of seven ($M = 7.20$, $SD = 17.47$) domestic trips and an average of five ($M = 4.58$, $SD = 17.76$) international trips.

An independent sample *t*-test was used to analyze the relationship between traveler type groups and domestic and international travel experience. Significant differences were found between groups for both domestic, $t(322) = -.609$, $p < .05$, and international, $t(322) = -1.15$, $p < .01$, vacation intentions. Results indicate that the SAT group has greater domestic and international travel intentions than HATs.

Number of destinations visited. An examination of the total number of destinations (continents/regions) respondents reported having visiting for vacation during their lifetime resulted in an average of five ($M = 5.06$, $SD = 2.90$) out of the seventeen provided. HATs had traveled to an average of six ($M = 5.62$, $SD = 3.11$) and SATs had traveled to an average of four ($M = 4.11$, $SD = 2.20$) out of the seventeen destinations (continents/regions). It should be noted that these figures do not represent how *often* a respondent may have traveled to a particular continent or region, simply the variety or mix of destinations (continents/regions) respondents have traveled to during their

lifetime. For the HAT group, fifteen was the maximum number of destinations (continents/regions) visited and thirteen was the maximum for the SAT group.

An independent sample *t*-test was employed to ascertain if differences existed between traveler type and number of destinations (continents/regions) visited. Significant differences were found for the number of destinations respondents visited during their lifetime, $t(322) = 4.66, p < .01$. Results indicated HATs have traveled to more destinations (continents/regions) than the SAT group.

Destinations experienced. Respondent vacation travel experience to select destinations (continents/regions) during their lifetime was examined and results are provided. As discussed in Chapter III, destinations were organized into three groups: (1) mass, (2) soft adventure, and (3) hard adventure. The groups were formed based on the results of the expert judge review. Using cross-tabulation analysis, a profile of the two traveler type groups was identified. To assess whether significant differences exist between traveler type and destination (continents/regions) experience, Chi-square tests were estimated. Significant differences between traveler type groups were found for seven of the seventeen destinations (continents/regions).

Mass destinations. Because the study population was from the United States, it was expected that North America (97%) would be the top destination respondents had visited during their lifetime (Table 14). The second most visited destination was Mexico (73%) followed by Western Europe (65%).

The top three destinations visited for the HAT group were North America (98%), Western Europe (72%), and the Caribbean (58%). For the SAT group top destinations were North America (96%), Western Europe (53%) and Caribbean (49%). The Chi-

square statistic was used to determine if any statistically significant differences between HAT and SAT groups existed. The analysis resulted with significant differences for two of the six mass tourism destinations, Western Europe, $\chi^2(1, N = 323) = 12.29, p < .01$, and Central Europe $\chi^2(1, N = 323) = 6.31, p < .05$. When compared with the SAT group, HATs were twenty-percent more likely to have traveled to Western Europe for vacation and 13% more likely to have traveled to Central Europe for vacation. Overall, results suggest HATs have more mass destination vacation travel experience than SATs.

Table 14

Mass Destinations Visited During Lifetime

Mass Destinations¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 323) %	χ^2	Sig.
Western Europe	72.2	52.9	65.1	12.29 ²	.000
Central Europe	36.1	22.7	31.2	6.31	.012
North America	98.0	95.8	97.2	1.41	.235
Mexico	47.2	25.9	73.1	0.63	.428
Caribbean	57.6	48.7	54.3	2.36	.124
Eastern Europe	13.7	6.7	11.1	3.67	.055

¹Categories were determined through expert review; ²df = 1.

Soft adventure destinations. Of the six soft adventure destinations, the top two visiting by respondents during their lifetime were North Asia (23%) and Australia (18%) (Table 15). For both traveler type groups the top destinations experienced were North Asia (SATs 18% and HATs 26%) and Australia (SATs 13% and HATs 20%). The next most experienced destination for HATs was the Middle East (18%) and for SATs it was New Zealand (12%). Significant differences between groups existed for two of the six soft adventure destinations, the Middle East, $\chi^2(1, N = 323) = 10.08, p < .01$ and South-

Southeast Asia, $\chi^2(1, N = 323) = 8.50, p < .01$. HATs were twice more likely than SATs to have traveled to the Middle East (HATs 18% versus SATs 6%) and South-Southeast Asia (HATs 22% versus SATs 9%).

Table 15

Soft Adventure Destinations Visited During Lifetime

Soft Adventure Destinations ¹	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 323) %	χ^2	Sig.
Middle East	18.5	5.9	13.9	10.08 ²	.001
South-Southeast Asia	22.0	9.2	17.3	8.50	.004
North Asia	26.3	17.6	23.1	3.20	.074
Australia	20.5	13.4	17.9	2.54	.111
New Zealand	16.1	11.8	14.5	1.14	.286
South Pacific	13.2	9.2	11.7	1.12	.290

¹Categories were determined through expert review; ²*df* = 1.

Hard adventure destinations. Central America (28%) and South America (23%) were the top hard adventure destinations respondents had visited during their lifetime (Table 16). For both traveler type groups, Central America was the top hard adventure destination (SATs 18% and HATs 34%) followed by South America (SATs 14% and HATs 29%). Significant differences among groups existed for three of the five hard adventure destinations, Africa $\chi^2(1, N = 323) = 9.25, p < .01$, Central America $\chi^2(1, N = 323) = 9.08, p < .01$, and South America, $\chi^2(1, N = 323) = 8.81, p < .01$. HATs were more likely than SATs to have traveled to Africa (SATs 11% versus HATs 25%), South America (SATs 14% versus HATs 29%), and Central America (SATs 18% versus 34%).

Table 16

Hard Adventure Destinations Visited During Lifetime

Hard Adventure Destinations ¹	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 323) %	<i>x</i> ²	<i>Sig.</i>
Africa	24.9	10.9	19.8	9.25 ²	.002
Central America	34.1	18.5	28.4	9.08	.003
South America	28.8	14.3	23.5	8.81	.003
Arctic	2.5	2.5	3.1	0.20	.654
Antarctica	0.0	0.0	1.2	2.35	.125

¹Categories were determined through expert review; ²*df* = 1.

Number of activities experienced. Overall, the average number of recreation and travel activities respondents reported experiencing during their lifetime was 22 ($M = 22.40$, $SD = 6.75$). The average for the HAT traveler type group was 25 ($M = 24.95$, $SD = 5.52$) and the average for the SAT group was 18 ($M = 18.02$, $SD = 6.43$).

An independent sample *t*-test was employed to ascertain differences between traveler type groups and the number of recreation and travel activities experienced. No significant difference was found between groups for recreation and travel activity experience. See Appendix K for a list of other recreation and travel activities not included in the list but were reported by respondents as recreation and travel activities experienced in vacation travel during their lifetime.

Activities experience. Recreation and travel activities experienced during respondents lifetime were examined. Based on the results of the expert judge review discussed in Chapter III, recreation and travel activities were organized into three groups: (1) mass, (2) soft adventure, and (3) hard adventure. Using cross-tabulation analysis, a profile of respondents and the two traveler type groups were identified. To assess whether

significant differences existed between traveler type and recreation and travel activity experience, Chi-square tests were estimated.

Mass activities. The top recreation and travel activities experienced during respondents' lifetime all were in the mass activity category (Table 17). These included: visited local/state/national parks (93%), dined (92%), and visited places of historical interest (90%).

In the case of the HAT group, hiking (94%) was the only heavy participation activity that was not classified as a mass activity. All other recreation and travel activities identified by HATs belonged to the mass activity category. These were: dined (96%), visited local/state/national parks (96%), visited places of historical interest (93%), visited friends or relatives (92%), and visited museums/galleries (90%). For the SAT traveler type group, the top recreation and travel activities experienced during their lifetime were: visited local/state/national parks (87%), dined (86%), and visited places of historical interest (85%), attended local festivals/fairs (81%), scenic driving (80%), and visited friends or relatives (78%).

HATs reported higher levels of activity experience in all cases except for one, having visited casinos/gambling/gaming (SATs 42% versus HATs 41%). Significant differences were found for 14 of the 20 mass recreation and travel activities, with HATs reporting significantly higher participation in all activities. Compared to the SAT group, a greater percentage of HATs reported experiences of getting to know local people, $\chi^2(1, N = 324) = 17.74, p < .01$ and having visited night clubs/nightlife/dancing, $\chi^2(1, N = 324) = 12.69, p < .01$.

Table 17

Mass Activities Experienced During Lifetime

Mass Activities ¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
Getting to know local people	80.5	58.8	72.5	17.74 ²	.000
Night life/visiting night clubs/dancing	60.0	39.5	52.5	12.69	.000
Swimming/sunbathing/beach activities	89.3	69.7	82.1	19.52	.000
Dining	96.1	85.7	92.3	11.40	.001
Visiting friends or relatives	91.7	78.2	86.7	12.02	.001
Attending concert/play/dance	81.5	66.4	75.9	9.36	.002
Visiting museums/galleries	89.8	77.3	85.2	9.24	.002
Visiting local/state/national parks	95.6	87.4	92.6	7.41	.006
Visiting gardens/botanical gardens	74.6	62.2	70.1	5.56	.018
Attending spectator sporting events	60.5	47.1	55.6	5.50	.019
Visiting places of historical interest	92.7	84.9	89.8	5.02	.025
Visiting zoos	73.2	62.2	69.1	4.26	.039
Visiting spas	32.2	21.8	28.4	3.96	.046
Scenic driving	87.8	79.8	84.9	3.73	.053
Attending local festivals/fairs	87.8	81.5	85.5	2.40	.121
City tours/short guided excursions	78.0	69.7	75.0	2.77	.096
Golfing/tennis	30.2	22.7	27.5	2.16	.142
Shopping	78.0	69.7	75.0	2.77	.096
Visiting casinos/gambling/gaming	41.5	42.0	41.7	0.01	.922
Visiting theme/amusement parks	62.9	56.3	60.5	1.38	.240

¹Categories were determined through expert review; ²df = 1.

Soft adventure activities. In the soft adventure recreation and travel activity category, the top three activities reported by respondents were: hiking (86%), camping (83%), and backpacking (68%). As shown in Table 18, over the course of their lifetime, the top soft recreation and travel activities experienced by the HAT group were: hiking (94%), camping (89%), and backpacking (79%). While the SAT group had highest participation in camping (73%), hiking (72%), and observing wildlife/birdwatching (48%).

Comparison of the travel type groups showed significant differences existed in 12 of the 13 soft adventure activities. HATs reported a higher proportion experience. A greater number of HATs reported having backpacked compared to SATs, $\chi^2(1, N = 324)$

= 36.20, $p < .01$. The HAT group also indicated more experience in mountain biking, $\chi^2(1, N = 324) = 28.69, p < .01$, and skiing and snowmobiling, $\chi^2(1, N = 324) = 25.21, p < .01$ than SATs. Hunting and fishing was the only soft adventure activity where no significant difference between groups existed.

Table 18

Soft Adventure Activities Experienced During Lifetime

Soft Adventure Activities ¹	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 324) %	χ^2	Sig.
Backpacking	79.5	47.1	67.6	36.20 ²	.000
Bicycle riding	68.3	38.7	57.4	27.05	.000
Boating	71.7	42.9	61.1	26.37	.000
Camping	88.8	73.1	83.0	13.12	.000
Hiking	93.7	72.3	85.8	28.28	.000
Kayaking/canoeing	67.8	46.2	59.9	14.60	.000
Mountain biking	46.3	16.8	35.5	28.69	.000
Skiing/snowmobiling	67.3	38.7	56.8	25.21	.000
Waterskiing/snorkeling	65.4	40.3	56.2	19.16	.000
Observing wildlife/birdwatching	67.3	47.9	60.2	11.85	.001
Scuba diving/surfing	43.9	27.7	38.0	8.36	.004
Volunteering on vacation	18.5	9.2	15.1	5.06	.024
Hunting/fishing	45.9	37.8	42.9	1.99	.159

¹Categories were determined through expert review; ² $df = 1$.

Hard adventure activities. The top hard adventure recreation and travel activities respondents experienced were: cave exploring/spelunking (36%), climbing mountain/rock/ice (35%), and trekking (32%) (Table 19). Respondents were grouped based on past travel experience, therefore no hard adventure activities were experienced by the SAT group otherwise the respondent would have been placed into the HAT traveler type group. More than half of the HAT group had experienced two of the four hard adventure activities, cave exploring/spelunking (57%) and climbing (55%), during their lifetime.

Table 19

Hard Adventure Activities Experienced During Lifetime

Hard Adventure Activities ¹	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 324) %	<i>x</i>²	<i>Sig.</i>
Cave exploring/spelunking	57.1	0.0	36.1	106.30 ²	.000
Climbing mountain/rock/ice	54.6	0.0	34.6	99.36	.000
Safaris	24.9	0.0	15.7	35.13	.000
Trekking	50.2	0.0	31.8	87.66	.000

¹Categories were determined through expert review; ²*df* = 1.

Travel Intention Profile

To understand short-term and long-term travel intentions, intentions were examined on two levels, during the next three years and during the respondents' lifetime. The following sections present sample statistics on domestic and international vacation travel intentions for the next three years, destinations (continents/regions) respondents plan to travel for vacation during their lifetime, and recreation and travel activities respondents plan to partake while on vacation during their lifetime.

Key travel intention variables were: average number of domestic and international vacations respondents plan to take during the next three years; average number of destinations (continents/regions) they plan to travel to during their lifetime; destinations (continents/regions) respondents plan to experience in the future (organized into three groups: mass destinations, and soft and hard adventure destinations); and the recreation and travel activities respondents plan to experience during their lifetime (organized into three groups: mass activities, and soft and hard adventure activities).

Domestic and international vacation plans. Respondents were asked to report on the number of domestic (U.S. or Canada) and international vacations they planned to take in the next three years. The average number domestic vacations respondents plan to take was seven ($M = 7.01$, $SD = 15.26$) and the average number of international vacations was four ($M = 4.31$, $SD = 15.20$). The averages were slightly different between traveler type groups. HATs plan to take an average of seven ($M = 6.52$, $SD = 12.22$) domestic vacations and SATs plan an average of eight ($M = 7.86$, $SD = 19.46$).

Results for international travel intentions were similar with HATs planning to take an average of four ($M = 3.59$, $SD = 11.82$) international vacations during the next three years and SATs planning an average of six ($M = 5.55$, $SD = 19.72$). Independent sample *t*-tests were used to analyze the relationship between traveler type and domestic and international travel intentions. Significant differences were found between groups for both domestic, $t(322) = -.761$, $p < .01$, and international, $t(322) = -1.12$, $p < .01$, vacation intentions. Results indicated that the SAT group has greater domestic and international travel intentions than HATs.

Number of continents/regions plan to visit. The average number of continents/regions respondents intend to visit during their lifetime was six ($M = 6.44$, $SD = 4.11$). For the SAT group the average number of continents/regions they planned to visit was five ($M = 4.67$, $SD = 3.19$) and for the HAT group the average was seven ($M = 7.47$, $SD = 4.23$). Averages were based on a count of the number of continents/regions respondents indicated they plan to travel while vacationing in their lifetime. As mentioned in the previous section, these figures do not represent how often a respondent plans to travel to a particular continent or region.

An independent sample *t*-test was employed to ascertain differences between traveler type groups and the number of destinations respondents planned for future vacations. Significant differences were found, $t(322) = 6.26, p < .01$. Results suggest HATs plan to visit more continents/regions than SATs.

Destination intentions. Respondent destination (continents/regions) intentions during their lifetime was examined and results are provided. As discussed previously discussed, based on results of the expert judge review, destinations were organized into three groups: (1) mass, (2) soft adventure, and (3) hard adventure. Using cross-tabulation analysis, a profile of respondents and the two traveler type groups were identified. To assess whether significant differences existed between traveler type and destination intention, Chi-square tests were estimated.

Mass destinations. Table 20 shows that North America (83%) and Western Europe (60%) were the top two destinations respondents plan to visit in the future. North America (SATs 82% and HATs 83%) and Western Europe (SATs 57% and HATs 61%) were the top choices for both traveler groups. The Chi-square statistic was used to determine if statistically significant differences between traveler type groups and future mass destination travel plans existed. Results of the analysis show significant differences between groups for three of the six mass destinations (Eastern Europe, Central Europe, and the Caribbean). Compared with SATs, 21% more HATs plan to travel for vacation in the future to Eastern Europe, $\chi^2(1, N = 323) = 26.93, p < .01$. HATs also had greater intentions than SATs to visit Central Europe (SATs 21% versus HATs 38%), $\chi^2(1, N = 323) = 10.08, p < .01$. In addition, HATs were 10% more likely than SATs to have plans to travel for vacation in the future to the Caribbean, $\chi^2(1, N = 323) = 4.81, p < .01$.

Table 20

Mass Destinations Plan to Visit During Lifetime

Mass Destination ¹	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 324) %	<i>x</i>²	<i>Sig.</i>
Eastern Europe	26.8	5.9	19.1	21.35 ²	.000
Central Europe	38.0	21.0	31.8	10.08	.001
Caribbean	43.4	31.1	38.9	4.81	.028
Western Europe	61.5	57.1	59.9	0.58	.444
Mexico	42.0	32.8	38.6	2.68	.102
North America	83.4	82.4	83.0	0.60	.806

¹Categories were determined through expert review; ²*df* = 1.

Soft adventure destinations. As shown in Table 21, the top three soft adventure destinations respondents plan to visit during their lifetime were North Asia (83%), Australia (57%), and New Zealand (51%). The top three soft adventure destinations were the same for both traveler groups. At the top of the list for the HATs (83%) and SATs (82%) was North Asia, followed by Australia (HATs 64% and SATs 44%), and then by New Zealand (HATs 57% and SATs 42%).

The Chi-square statistic was used to determine if any statistically significant differences between groups existed. Results of the analysis showed significant differences between traveler type groups for all six soft adventure destinations. In all cases, HATs reported greater intentions to visit the destinations for vacation during their lifetime. The greatest difference was found for plans to visit South-Southeast Asia. HATs were more likely to plan to visit South-Southeast Asia (SATs 9% and HATs 33%), $\chi^2(1, N = 323) = 4.81, p < .01$, than SATs. A significant difference was also found for intentions to visit the South Pacific, $\chi^2(1, N = 323) = 17.91, p < .01$. Seventeen percent of

HATs plan to visit Antarctica, whereas 6% of SATs plan to travel to the continent. This difference was statistically significant, $\chi^2(1, N = 323) = 12.94, p < .01$.

Table 21

Soft Adventure Destinations Plan to Visit During Lifetime

Soft Adventure Destination ¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
South Pacific	44.4	21.0	35.8	17.91 ²	.000
North Asia	83.4	82.4	83.0	18.02	.000
South-Southeast Asia	33.2	9.2	24.4	23.38	.000
Middle East	28.3	6.7	20.4	21.60	.000
Australia	63.9	44.5	56.8	11.51	.001
New Zealand	55.6	42.0	50.6	5.57	.018

¹Categories were determined through expert review; ²df = 1.

Hard adventure destinations. The top two hard adventure destinations (continents/regions) respondents plan to visit for vacation during their lifetime were Central America (45%) and South America (44%) (Table 22). Both traveler groups indicated Central America and South America as the top hard adventure destinations they plan to travel to for a vacation during their lifetime. More than half of the HAT group indicated they plan to travel to Central American (53%) and South America (53%) for a vacation in their lifetime. Similarly, South America (30%) and Central America (33%) were the top destination choices for SATs.

A significant difference was found in four of the five hard adventure destinations, with the Arctic being the only non-significant hard adventure destination. In all cases, HATs had greater intentions to travel for vacation. HATs were more likely to have intentions to travel to Africa for vacation, $\chi^2(1, N = 323) = 26.93, p < .01$, than SATs. HATs were the only group reporting past vacation travel experience to Antarctica (2%),

and they reported the greatest level of intention (19%) to visit Antarctica for vacation travel. None of the respondents from SAT group indicated having past vacation experience to Antarctica; however a small percentage (5%) reported plans to travel there for vacation in the future.

Table 22

Hard Adventure Destinations Plan to Visit During Lifetime

Hard Adventure Destination¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
South America	52.7	30.3	44.4	15.34 ²	.000
Africa	47.3	18.5	36.7	26.93	.000
Antarctica	19.5	5.0	14.2	12.94	.000
Central America	52.7	32.8	45.4	12.04	.001
Arctic	14.1	9.2	12.3	1.67	.196

¹Categories were determined through expert review; ²df = 1.

Activity intentions. Respondent's recreation and travel activity intentions were examined and results are provided. Based on the results of an expert judge review, recreation and travel activities were organized into three groups: (1) mass, (2) soft adventure, and (3) hard adventure. Using cross-tabulation analysis, a profile of the two traveler groups was identified. To assess whether significant differences exist between traveler type groups and recreation and travel activity intentions, Chi-square tests were estimated.

Number of activities plan to experience. The average number of recreation and travel activities respondents intend to experience during their lifetime was fifteen ($M = 15.68$, $SD = 9.66$). For the SAT traveler type group the average was also fourteen ($M =$

13.69, $SD = 8.01$). In contrast, HATs plan to experience an average of seventeen ($M = 16.84$, $SD = 10.34$) recreation and travel activities during their lifetime.

An independent sample t -test was employed to ascertain differences between traveler type groups and the number of recreation and travel activities they plan to experience during their lifetime. Significant differences were found between groups $t(322) = 2.87$, $p < .01$. HATs reported intentions to experience three more activities than SATs. See Appendix L for a list of recreation and travel activities respondents plan to experience that were not included on the survey, but were reported by respondents.

Mass activities. Among all respondents visiting local, state, and national parks (69%), followed by places of historical interest (67%) and dining out (67%) were the top mass recreation and travel activities they intend to take part in during their lifetime (Table 23). In the case of HATs, the mass activities they plan to participate in are: visiting local/state national parks (69%), visiting places of historical interest (65%), dining (64%), and visiting friends or relatives (64%). In comparison, the majority of SATs reported they plan to participate in the following mass activities: dining (71%), visiting local/state/national parks (69%), visiting places of historical interest (69%) and scenic driving (64%).

A significant difference between traveler groups was found for only one mass activity, attending spectator sporting events, $\chi^2(1, N = 324) = 6.50$, $p < .01$. HATs were more likely than SATs to plan to attend spectator sporting events in the future (HATs 41% and SATs 27%).

Table 23

Mass Activity Intentions During Lifetime

Mass Activities ¹	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 324) %	χ^2	Sig.
Attending spectator sporting events	41.0	26.9	35.8	6.50 ²	.011
Attending concert/play/dance	49.3	46.2	48.1	0.28	.596
Attending local festivals/fairs	55.1	56.3	55.6	0.04	.837
City tours/short guided excursions	48.3	54.6	50.6	1.21	.272
Dining	64.4	70.6	66.7	1.30	.254
Getting to know local people	56.6	47.1	53.1	2.74	.098
Golfing/tennis	16.1	15.1	15.7	0.05	.817
Night life/visiting night clubs/dancing	28.8	21.8	26.2	1.87	.172
Scenic driving	62.9	64.7	63.6	0.10	.748
Shopping	51.7	53.8	52.5	0.13	.719
Swimming/sunbathing/beach activities	59.0	55.5	57.7	0.39	.532
Visiting casinos/gambling/gaming	17.1	25.2	20.1	3.11	.078
Visiting friends or relatives	63.9	60.5	62.7	0.37	.542
Visiting gardens/botanical gardens	48.8	44.5	47.2	0.54	.461
Visiting local/state/national parks	68.8	68.9	68.8	0.00	.981
Visiting museums/galleries	61.5	62.2	61.7	0.02	.898
Visiting places of historical interest	65.4	68.9	66.7	0.42	.514
Visiting spas	25.9	17.6	22.8	2.88	.090
Visiting theme/amusement parks	28.3	28.6	28.4	0.00	.957
Visiting zoos	39.5	34.5	37.7	0.82	.365

¹Categories were determined through expert review; ²*df* = 1.

Soft adventure activities. Results for soft adventure recreation and travel activities respondents plan to experience during lifetime are presented in Table 24. Hiking (59%) was the top soft adventure recreation and travel activity respondents intended to take part in during their lifetime, followed by camping (48%), kayaking/canoeing (48%), and observing wildlife/birdwatching (43%). The top, planned future activity for both traveler groups was hiking (SATs 51% and HATs 64%). For the SAT hiking was followed by observing wildlife/birdwatching (39%) and for the HAT group it was kayaking/canoeing (56%).

A significant difference between traveler groups was observed for all 11 of the 13 soft recreation and travel activities, with hunting/fishing and observing wildlife/birdwatching being the only non-significant cases. In all cases, the HAT group had greater intentions to participate than SATs. Both groups reported an interest in volunteering on vacation (HATs 39% and SATs 18%). Significant differences were found between HATs and SATs with regard to intentions to volunteer on vacation, $\chi^2(1, N = 323) = 5.06, p < .01$, with almost a quarter (22%) more HATs planning to volunteer on vacation in the future.

Table 24

Soft Adventure Activity Intentions During Lifetime

Soft Adventure Activities ¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
Volunteering on vacation	39.5	17.6	31.5	16.69 ²	.000
Kayaking/canoeing	55.6	36.1	48.5	11.43	.001
Mountain biking	32.2	16.0	26.2	10.25	.001
Skiing/snowmobiling	46.3	26.9	39.2	11.95	.001
Boating	46.3	31.1	40.7	9.56	.002
Backpacking	48.8	31.9	42.6	8.74	.003
Waterskiing/snorkeling	45.9	30.3	40.1	7.63	.006
Bicycle riding	46.3	31.1	40.7	7.25	.007
Hiking	63.9	51.3	59.3	4.98	.026
Scuba diving/surfing	44.4	31.9	39.8	4.88	.027
Camping	52.7	41.2	48.5	3.99	.046
Hunting/fishing	25.9	27.7	26.5	0.14	.712
Observing wildlife/birdwatching	46.3	38.7	43.5	1.81	.179

¹Categories were determined through expert review; ²df = 1.

Hard adventure activities. Presented in Table 25 are the results for hard adventure activities respondents plan to experience in their lifetime. Safaris (40%) followed by trekking (27%) and climbing mountain/rock/ice (23%) were the top intended hard adventure activities reported by respondents. Similarly, safaris were the most

popular hard adventure activity that both traveler type groups plan to experience. Almost half of HATs (48%) and more than a quarter of SATs (27%) plan to take a safari on a future vacation. Results suggest that a limited number of the SAT group have intentions to experience hard adventure activities including; trekking (7%), cave exploring/spelunking (5%), or mountain, rock or ice climbing (5%).

Significant differences were found between groups for all hard activities. HATs reported greater intentions to take a safari, $\chi^2(1, N = 323) = 13.71, p < .05$. In addition, more HATs (38%) plan to experience trekking than SATs (7%) on a future vacation, $\chi^2(1, N = 323) = 38.80, p < .05$. More than one-quarter (26%) of the HAT group reported plans to participate in cave exploring/spelunking compared with just five percent of the SATs, $\chi^2(1, N = 323) = 22.64, p < .01$ planning to experience cave exploring/spelunking.

Table 25

Hard Adventure Activity Intentions During Lifetime

Hard Adventure Activities ¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
Cave exploring/spelunking	26.3	5.0	18.5	22.64 ²	.000
Climbing mountain/rock/ice	34.1	5.0	23.5	35.52	.000
Safaris	47.8	26.9	40.1	13.71	.000
Trekking	38.5	6.7	26.9	38.80	.000

¹Categories were determined through expert review; ²df = 1.

Destination experience and intentions combined. The relationship between destination experience and future intentions to visit a destination were examined. Cross tabulations show a significant relationship between experience and intention levels. The results are organized according to three destination type groups; (1) mass destinations, (2)

soft adventure destinations, and (3) hard adventure destinations. As discussed in Chapter III, destination groups were determined based on expert review.

Mass destination experience and intentions. North America was the top mass destination, however, the assumption was made that all respondents had experienced or had intentions to experience a vacation in North America. Excluding North America, Western Europe (86%), Mexico (82%), and the Caribbean (68%) were the top mass destinations respondents reported having experienced or having plans to experience (Table 26). An examination of traveler type indicated the top three top mass destinations for HATs and SATs were also Western Europe, Mexico, and the Caribbean.

Chi-square analysis indicated significant differences between traveler type groups and experience or plans to experience five of the six mass destinations. The greatest difference between HATs and SATs was for Eastern Europe, $\chi^2(1, N = 324) = 21.07, p < .01$, with HATs (35%) reporting more experience and/or plans to experience the destination than SATs (12%). Next was Central Europe, $\chi^2(1, N = 324) = 23.33, p < .01$, with HATs (58%) again reporting greater experience and/or intentions than SATs (38%).

Table 26

Mass Destination Experience and Intentions Combined

Mass Destinations¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
Central Europe					
No experience – No intentions	42.0	62.2	49.4	12.33 ²	.000
Experience and/or Plan to experience	58.0	37.8	50.6		
Eastern Europe					
No experience – No intentions	64.9	88.2	73.5	21.07	.000
Experience and/or Plan to experience	35.1	11.8	26.5		
Caribbean					
No experience – No intentions	26.3	40.3	31.5	6.84	.009
Experience and/or Plan to experience	73.7	59.7	68.5		
Mexico					
No experience – No intentions	13.7	25.2	17.9	6.84	.009
Experience and/or Plan to experience	86.3	74.8	82.1		
Western Europe					
No experience – No intentions	8.8	23.5	14.2	13.44	.000
Experience and/or Plan to experience	91.2	76.5	85.8		
North America					
No experience – No intentions	1.5	2.5	1.9	0.46	.496
Experience and/or Plan to experience	98.5	97.5	98.1		

¹ Categories were determined through expert review; ² $df = 1$.

Soft adventure destination experience and intentions. Australia (68%) and New Zealand (60%) were the top soft adventure destinations respondents had experienced or plan to experience (Table 27). An examination of traveler type indicated the top soft adventure destinations HATs experienced or plan to experience were also New Zealand (66%) and Australia (75%). In the case of SATs, while the percentages were not as high as the HAT group, Australia (56%) and New Zealand (50%) were still the top soft adventure destinations SATs had experienced or plan to experience during their lifetime.

Chi-square analysis indicated significant differences between traveler type groups and experience or plans to experience for all six of the soft adventure destinations. The greatest difference between HATs and SATs was for South-Southeast Asia, $\chi^2(1, N =$

324) = 33.01, $p < .01$, with HATs reporting 32% more experience or plans to experience travel to South-Southeast Asia on a vacation trip than SATs. Following closely was the Middle East, $\chi^2(1, N = 324) = 30.71, p < .01$, with HATs reporting 29% more experience or intentions to experience traveling to the Middle East than SATs.

Table 27

Soft Adventure Destination Experience and Intentions Combined

Soft Adventure Destinations ¹	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 324) %	χ^2	Sig.
North Asia					
No experience – No intentions	43.4	68.1	52.5	18.35 ²	.000
Experience and/or Plan to experience	56.6	31.9	47.5		
South Pacific					
No experience – No intentions	46.8	73.1	56.6	21.16	.000
Experience and/or Plan to experience	53.2	26.9	43.5		
South-Southeast Asia					
No experience – No intentions	51.2	83.2	63.0	33.01	.000
Experience and/or Plan to experience	48.8	16.8	37.0		
Middle East					
No experience – No intentions	60.0	89.1	70.7	30.71	.000
Experience and/or Plan to experience	40.0	10.9	29.3		
Australia					
No experience – No intentions	25.4	43.7	32.1	11.61	.001
Experience and/or Plan to experience	74.6	56.3	67.9		
New Zealand					
No experience – No intentions	33.7	49.6	39.5	7.99	.005
Experience and/or Plan to experience	66.3	50.4	60.5		

¹Categories were determined through expert review; ² $df = 1$.

Hard adventure destination experience and intentions. Central America (61%) and South America (58%) were the top hard adventure destinations respondents had experienced or plan to experience during their lifetime (Table 28). An examination of traveler type groups indicated the top hard adventure destinations HATs experienced or plan to experience were also Central America (71%) and South America (69%). The top

hard adventure destinations for SATs were also Central American (44%) and South America (38%).

To examine differences between traveler type groups, Chi-square analysis was employed. Results indicated significant differences between traveler type groups and experience or plans to experience for four out five hard adventure destinations. The greatest difference between HATs and SATs was for Africa, $\chi^2(1, N = 324) = 31.40, p < .01$, with HATs reporting 32% more experience or plans to experience Africa on a vacation trip than SATs. Following closely was the South America, $\chi^2(1, N = 324) = 30.52, p < .01$, with HATs reporting 31% more experience or intentions to experience traveling to the South American than SATs. No significant differences were found between traveler type groups and experience and/or plan to experience travel to the Arctic. However, a higher percentage of HATs (17%) indicated experience and/or plans to experience travel to the Arctic for vacation compared to SATs (10%). At each end of the destination continuum are the Arctic, where few people can travel to, and North America where respondents live.

Table 28

Hard Adventure Destination Experience and Intentions Combined

Hard Adventure Destinations¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
Africa					
No experience – No intentions	40.0	72.3	51.9	31.40 ²	.000
Experience and/or Plan to experience	60.0	27.7	48.1		
Antarctica					
No experience – No intentions	78.5	95.0	84.6	15.56	.000
Experience and/or Plan to experience	21.5	5.0	15.4		
South America					
No experience – No intentions	30.7	62.2	42.3	30.52	.000
Experience and/or Plan to experience	69.3	37.8	57.7		
Central America					
No experience – No intentions	28.8	56.3	38.9	24.00	.000
Experience and/or Plan to experience	71.2	43.7	61.1		
Arctic					
No experience – No intentions	83.4	89.9	85.8	2.61	.106
Experience and/or Plan to experience	16.6	10.1	14.2		

¹Categories were determined through expert review; ²df = 1.

Activities experience and intentions combined. The relationships between recreation and travel activity experience and future recreation and travel activity intentions were examined. Cross tabulations show a significant relationship between experience and intention. As previously explained, the results are organized according to three groups; (1) mass activities, (2) soft adventure activities, and (3) hard adventure activities.

Mass activity experience and intentions. The top three mass activities respondents reported having experienced or plan to experience in the future were: visiting local/state/national parks (94%), visiting places of historical interest (93%), and dining (93%) (Table 29). An examination of traveler type indicated the top three top mass activities for HATs were also visiting local/state/national parks (97%), visiting places of historical interest (95%), and dining (96%). For SATs the top three were: visiting

local/state/national parks (91%), visiting places of historical interest (90%), and dining (87%).

Chi-square analysis indicated significant differences between traveler type groups and experience or plans to experience for 12 out of 15 mass recreation and travel activities. The greatest difference was for nightlife, $\chi^2(1, N = 324) = 14.16, p < .01$, with HATs (62%) reporting more experience and/or plans to experience nightlife than SATs (40%). Next, HATs (85%) reported more experience and/or intentions to experience than SATs (65%) for the getting to know local people, $\chi^2(1, N = 324) = 18.59, p < .01$. Visiting spas was next, $\chi^2(1, N = 24) = 10.70, p < .01$, with HATs (42%) reporting greater experience or intentions to experience than SATs (24%).

Table 29

Mass Activity Experience and Intentions Combined

Mass Activities¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
Getting to know local people					
No experience – No intentions	14.6	35.3	22.2	18.59 ²	.000
Experience and/or Plan to experience	85.4	64.7	77.8		
Night life/visiting night clubs/dancing					
No experience – No intentions	38.0	59.7	46.0	14.16	.000
Experience and/or Plan to experience	62.0	40.3	54.0		
Visiting spas					
No experience – No intentions	57.6	75.6	64.2	10.70	.001
Experience and/or Plan to experience	42.4	24.4	35.8		
Dining					
No experience – No intentions	3.9	12.6	7.1	8.65	.003
Experience and/or Plan to experience	96.1	87.4	92.9		
Visiting friends or relatives					
No experience – No intentions	7.8	18.5	11.7	8.30	.004
Experience and/or Plan to experience	92.2	81.5	88.3		
Visiting museums/galleries					
No experience – No intentions	8.8	19.3	12.7	7.58	.006
Experience and/or Plan to experience	91.2	80.7	87.3		
Visiting gardens/botanical gardens					
No experience – No intentions	21.5	35.3	26.5	7.39	.007
Experience and/or Plan to experience	78.5	64.7	73.5		
Attending spectator sporting events					
No experience – No intentions	33.7	48.7	39.2	7.18	.007
Experience and/or Plan to experience	66.3	51.3	60.8		
Attending concert/play/dance					
No experience – No intentions	16.6	26.9	20.4	4.93	.026
Experience and/or Plan to experience	83.4	73.1	79.6		
Visiting local/state/national parks					
No experience – No intentions	3.4	9.2	5.6	4.88	.027
Experience and/or Plan to experience	96.6	90.8	94.4		
Scenic driving					
No experience – No intentions	9.8	17.6	12.7	4.24	.039
Experience and/or Plan to experience	90.2	82.4	87.3		
Visiting zoos					
No experience – No intentions	24.4	34.5	28.1	3.77	.052
Experience and/or Plan to experience	75.6	65.5	71.9		
Visiting places of historical interest					
No experience – No intentions	5.4	10.1	7.1	2.54	.111
Experience and/or Plan to experience	94.6	89.9	92.9		
City tours/short guided excursions					
No experience – No intentions	18.0	25.2	20.7	2.35	.125
Experience and/or Plan to experience	82.0	74.8	79.3		
Attending local festivals/fairs					
No experience – No intentions	9.8	15.1	11.7	2.10	.148
Experience and/or Plan to experience	90.2	84.9	88.3		

Table 29 *Continued*

Shopping					
No experience – No intentions	22.0	27.7	24.1	1.38	.241
Experience and/or Plan to experience	78.8	72.3	75.9		
Visiting theme/amusement parks					
No experience – No intentions	34.6	40.3	36.7	1.05	.305
Experience and/or Plan to experience	65.4	59.7	63.3		
Golfing/tennis					
No experience – No intentions	67.8	72.3	69.4	0.71	.400
Experience and/or Plan to experience	32.2	27.7	30.6		
Visiting casinos/gambling/gaming					
No experience – No intentions	56.6	55.5	56.2	0.04	.844
Experience and/or Plan to experience	43.4	44.5	43.8		

¹Categories were determined through expert review; ² $df = 1$.

Soft adventure activity experience and intentions. The top soft adventure activities respondents reported having experienced or plan to experience in the future were: hiking (87%), camping (85%) and swimming/sunbathing/beach activities (84%) (Table 30). In all cases, the HAT group had the highest percentage of experience and or plans to experience hard adventure activities while SATs reported the greatest percentage of no experience and no intentions to experience. Hiking (95%), camping (91%), and swimming/sunbathing/beach activities (90%) were the top soft adventure activity HATs had experienced or plan to experience. For SATs the top three were the same, but camping (75%) was first followed by hiking (73%), and swimming/sunbathing/beach activities (72%).

Chi-square analysis was used to examine if there was an association between traveler type and soft adventure activity experience and intentions. The analysis revealed significant differences between HATs and SATs in 13 of the 14 soft adventure activities. HATs reported greater percentage of experience and/or plans to experience activities such as backpacking, $\chi^2(1, N = 324) = 31.45, p < .01$, bicycle riding, $\chi^2(1, N = 324) = 21.74, p < .01$, and camping, $\chi^2(1, N = 324) = 14.01, p < .01$.

Table 30

Soft Adventure Activity Experience and Intentions Combined

Soft Adventure Activities ¹	Hard Adventure Traveler (n = 205) %	Soft Adventure Traveler (n = 119) %	All Travelers (N = 324) %	χ^2	Sig.
Backpacking					
No experience – No intentions	16.6	45.4	27.2	31.55 ²	.000
Experience and/or Plan to experience	83.4	54.6	72.8		
Bicycle riding					
No experience – No intentions	26.3	52.1	35.8	21.74	.000
Experience and/or Plan to experience	73.7	47.9	64.2		
Boating					
No experience – No intentions	27.3	52.9	36.7	21.27	.000
Experience and/or Plan to experience	72.7	47.1	63.3		
Camping					
No experience – No intentions	9.3	25.2	15.1	14.91	.000
Experience and/or Plan to experience	90.7	74.8	84.9		
Hiking					
No experience – No intentions	5.4	26.9	13.3	30.31	.000
Experience and/or Plan to experience	94.6	73.1	86.7		
Kayaking/canoeing					
No experience – No intentions	19.5	47.9	29.9	28.93	.000
Experience and/or Plan to experience	80.5	52.1	70.1		
Mountain biking					
No experience – No intentions	46.8	77.3	58.0	28.72	.000
Experience and/or Plan to experience	53.2	22.7	42.0		
Scuba diving/surfing					
No experience – No intentions	38.5	62.2	47.2	16.89	.000
Experience and/or Plan to experience	61.5	37.8	52.8		
Skiing/snowmobiling					
No experience – No intentions	27.3	56.3	38.0	26.86	.000
Experience and/or Plan to experience	72.7	43.7	62.0		
Swimming/sunbathing/beach activities					
No experience – No intentions	9.8	27.7	16.4	17.78	.000
Experience and/or Plan to experience	90.2	72.3	83.6		
Volunteering while on vacation					
No experience – No intentions	54.6	77.3	63.0	16.60	.000
Experience and/or Plan to experience	45.4	22.7	37.0		
Waterskiing/snorkeling					
No experience – No intentions	31.7	58.0	41.4	21.43	.000
Experience and/or Plan to experience	68.3	42.0	58.6		
Observing wildlife/bird watching					
No experience – No intentions	28.8	47.9	35.8	11.97	.001
Experience and/or Plan to experience	71.2	52.1	64.2		
Hunting/fishing					
No experience – No intentions	50.7	57.1	53.1	1.24	.265
Experience and/or Plan to experience	49.3	42.9	46.9		

¹Categories were determined through expert review; ²df = 1.

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Hard adventure activity experience and intentions. As shown in Table 31, the top hard adventure activities respondents reported having experienced or plan to experience in the future were safaris (47%) and cave exploring (43%). In all cases, the HAT group had the highest percentage of experience and or plans to experience hard adventure activities while SATs reported the greatest percentage of no experience and no intentions to experience. Cave exploring/spelunking was the top hard adventure activity HATs had experienced or plan to experience (65%), whereas the top for SATs going on a safari (27%).

A Chi-square test was used to determine whether there was a significant difference between HATs and SATs in hard adventure activity experience and intentions. The analysis revealed significant differences for all hard adventure activities with HATs having greater experience and/or plans to experience cave exploring/spelunking $\chi^2(1, N = 324) = 111.65, p < .01$, climbing, $\chi^2(1, N = 324) = 102.27, p < .01$, safaris, $\chi^2(1, N = 324) = 31.19, p < .01$, and trekking, $\chi^2(1, N = 324) = 87.34, p < .01$.

Table 31

Hard Adventure Activity Experience and Intentions Combined

Hard Adventure Activities ¹	Hard Adventure Traveler (<i>n</i> = 205) %	Soft Adventure Traveler (<i>n</i> = 119) %	All Travelers (<i>N</i> = 324) %	χ^2	Sig.
Cave exploring/spelunking					
No experience – No intentions	34.6	95.0	56.8	111.65 ²	.000
Experience and/or Plan to experience	65.4	5.0	43.2		
Climbing - mountain/rock/ice					
No experience – No intentions	37.6	95.0	58.6	102.27	.000
Experience and/or Plan to experience	62.4	5.0	41.4		
Safaris					
No experience – No intentions	41.0	73.1	52.8	31.19	.000
Experience and/or Plan to experience	59.0	26.9	47.2		
Trekking					
No experience – No intentions	40.5	93.3	59.9	87.34	.000
Experience and/or Plan to experience	59.5	6.7	40.1		

¹ Categories were determined through expert review; ² *df* = 1.

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Pre-Trip and Post Travel Behavior Profile

Respondent vacation travel behavior pre-trip, during trip, and post-trip are discussed in the next sub-section. Included in this section are pre- and post-travel behavior profile (trip planning; sources used to book or reserve trips; helpfulness of sources; pre-trip activities, communication types used, technologies used before, during and after vacation travel, helpfulness of technology, and lifestyle changes following a vacation trip); (5) descriptive statistics of the personality traits (elemental, compound, situational, and surface); (6) factor analysis to determine underlying factors of the surface trait ATP; and (6) hierarchical regressions to test the hypotheses.

Pre-trip planning behavior. Information regarding respondent's trip planning behavior (i.e., how far ahead they plan a vacation trip) was collected (Table 32). Most respondents (61%) strongly agree or agree that they plan trips well in advance or prior to leaving (64%) The majority of the SAT group agreed or strongly agreed they plan trips well in advance (71%), whereas the majority of HATs (67%) agreed or strongly agreed they plan most trips before they leave.

An independent sample *t*-test was employed to ascertain group differences in vacation planning behavior. Results indicate a significant difference between HATs and SATs for planning trips well in advance $t(318) = -2.65, p < .01$. The SAT group ($M = 3.78, SD = 0.95$) had higher agreement level than the HAT group ($M = 3.46, SD = 1.13$). Results suggest SATs are more likely to plan trips in advance. No significant differences were found between groups for planning trips closer to departure or even once arriving at the destination.

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Table 32

Vacation Trip Planning

Planning Behavior ¹	Hard Adventure Traveler			Soft Adventure Traveler			All Travelers			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Plan trips well in advance	204	3.46 ²	1.13	116	3.78	0.95	320	3.58	1.08	-2.65	.000
Plan most trips before leave	205	3.61	1.04	116	3.49	0.97	321	3.57	1.02	1.00	.689
Plan most trips once I arrive	203	2.16	0.99	116	2.09	1.04	319	2.13	1.01	0.65	.865

¹Based on vacation trip taken in the previous 12 months; ²Based on a five-point scale where 1 = *strongly disagree* and 5 = *strongly agree*.

Sources used to book or reserve vacation trips. Table 33 provides a summary of sources used by respondents when booking or reserving a vacation trip taken in the past 12 months. The top five booking sources used were: airline websites (82%); search engines (77%) such as Google and Yahoo; magazines (67%); accommodations websites (67%); and guidebooks (66%).

For both HAT and SAT groups, the top three sources used when booking or reserving vacation trips were: airline websites (HATs 88% and SATs 71%); search engines (HATs 84% SATs 65%) such as Google and Yahoo; and magazines (HATS 73% and SATs 67%). HATs reported using guidebooks (73%) and advice/recommendations of friends and family (71%). SATs reported using accommodations websites (57%) and magazines (58%). See Appendix M for a list of additional booking sources used by respondents.

Results of Chi-square analyses indicated differences between HATs and SATs and the booking sources used. HATs used travel websites such as Expedia and Lonely Planet one-quarter more, $\chi^2(1, N = 318) = 19.24, p < .01$ than the SAT group. HATs were

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more likely to use magazines, $\chi^2(1, N = 318) = 7.55, p < .05$ and guidebooks, $\chi^2(1, N = 318) = 7.31, p < .05$, as booking sources than SATs.

Table 33

Sources Used to Book Vacation Travel

Booking Source Used ¹	Hard Adventure Traveler (<i>n</i> = 202) %	Soft Adventure Traveler (<i>n</i> = 116) %	All Travelers (<i>N</i> = 318) %	χ^2	<i>Sig.</i>
Airline websites	88.1	70.7	81.8	15.01 ²	.000
Search engines	84.2	65.5	77.4	14.62	.000
Travel websites	65.8	40.5	56.6	19.24	.000
Stories/blogs from travelers and travel writers	47.5	25.0	39.3	15.67	.000
Advice/recommendations of friends or family	70.8	54.3	64.8	8.77	.003
Magazines	72.8	57.8	67.3	7.55	.006
Guidebooks	71.8	56.9	66.4	7.31	.007
Hotwire.com	20.2	9.6	16.4	6.07	.014
Accommodation websites	71.8	58.6	67.0	5.77	.016
Travelocity.com	58.1	46.1	53.8	4.28	.039
Local or government tourism websites	60.9	49.1	56.6	4.14	.042
Priceline.com	28.6	20.9	25.8	2.28	.131
Expedia.com	55.7	47.0	52.5	2.23	.135
Orbitz.com	50.7	42.6	47.8	1.94	.163
Cheaptickets.com	29.1	22.6	26.7	1.56	.211
Travel trade shows	7.9	4.3	6.6	1.56	.212
Hotels.com	38.4	32.2	36.2	1.24	.265
Tour operators/Lodges	30.5	25.2	28.6	1.02	.313
Hotel websites	68.5	63.5	66.7	0.82	.364
Newspapers	36.6	31.9	34.9	0.73	.394
TV travel shows	30.2	27.6	29.2	0.24	.622
Travel agents	28.1	30.4	28.9	0.20	.656
Kayak.com	15.8	13.9	15.1	0.20	.658
Tour brochures	40.6	38.8	39.9	0.10	.752
Travel agents	28.2	27.6	28.0	0.01	.904

¹Based on vacation trip taken in the previous 12 months; ²*df* = 1.

Helpfulness of sources used to book or reserve vacation trips. Respondents were asked to rate helpfulness (1 = not helpful, 2 = somewhat helpful, and 3 = very helpful) of those booking sources they used during the past 12 months. Results are presented in Table 34. The most helpful sources used to book a vacation in the last 12 months were: search engines ($M=2.67, SD=0.47$); guidebooks ($M=2.60, SD=0.51$); airline

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websites ($M=2.58$, $SD=0.54$); accommodation websites ($M=2.54$, $SD=0.55$); and tour operators/lodges ($M=2.54$, $SD=0.54$).

For the SAT group, the most helpful booking sources were: airline websites ($M=2.66$, $SD=0.53$); guidebooks ($M=2.64$, $SD=0.48$); accommodation websites ($M=2.56$, $SD=0.50$); search engines ($M=2.51$, $SD=0.50$); and stories/blogs from travelers and travel writers ($M=2.48$, $SD=0.69$). Most helpful sources used by HATs were: search engines such as Google and Yahoo ($M = 2.75$, $SD = 0.44$), tour operators/lodges, (US and foreign based) ($M = 2.64$, $SD = .052$); guidebooks ($M = 2.58$, $SD = 0.52$); airline websites ($M = 2.55$, $SD = 0.54$); and travel agents ($M = 2.55$, $SD = 0.57$).

The results of the Chi-square analyses reported in Table 34 indicate significant differences between traveler groups regarding helpfulness of booking sources. Seven of the booking sources; local government tourism websites, search engines, magazines, stories/blogs from travelers and travel writers, local/government websites, tour brochures, and airline websites were significant, in particular SATs rated stories/blogs from travelers and travel writers and airline websites as more helpful than HATs. For all other booking sources HATs rated their helpfulness higher than SATs.

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Table 34

Mean Scores for Helpfulness of Sources Used to Book Vacation Travel

Booking Source Used ¹	Hard Adventure Travelers			Soft Adventure Travelers			All Travelers			<i>t</i>	Sig.
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Local or government tourism websites	119	2.47 ²	0.56	55	2.27 ³	0.45	193	2.42	0.54	2.28	.000
Search engines	166	2.75	0.44	73	2.51	0.50	239	2.67	0.47	3.74	.000
Magazines	142	2.37	0.53	65	2.17	0.52	207	2.31	0.53	2.60	.003
Stories/blogs	96	2.36	0.53	29	2.48	0.69	125	2.39	0.57	-0.98	.012
Tour brochures	79	2.28	0.62	42	2.19	0.50	121	2.25	0.58	0.79	.019
Airline websites	172	2.55	0.54	80	2.66	0.53	252	2.58	0.54	-1.59	.045
Guidebooks	141	2.58	0.52	64	2.64	0.48	205	2.60	0.51	-0.77	.088
Accommodation websites	140	2.54	0.57	66	2.56	0.50	206	2.54	0.55	0.30	.128
Newspapers	73	2.27	0.51	36	2.11	0.52	109	2.22	0.52	1.56	.139
Travel agents	55	2.55	0.66	30	2.37	0.56	90	2.48	0.62	1.39	.635
Travel trade shows	16	2.31	0.79	3	1.67	0.58	19	2.21	0.79	1.33	.270
Hotels.com	78	2.24	0.58	37	2.41	0.60	115	2.30	0.59	-1.37	.300
Kayak.com	31	2.45	0.62	16	2.25	0.77	47	2.38	0.68	0.97	.322
Expedia.com	111	2.52	0.52	54	2.41	0.57	165	2.48	0.54	1.30	.407
TV travel shows	61	2.18	0.59	31	2.35	0.55	92	2.24	0.58	-1.37	.557
Travel agents	55	2.55	0.57	30	2.37	0.56	85	2.48	0.57	1.39	.635
Priceline.com	58	2.16	0.67	25	2.32	0.56	83	2.20	0.64	-1.08	.696
Tour operators/Lodges	61	2.64	0.52	30	2.33	0.55	91	2.54	0.54	2.60	.735
Advice/recommendation from friends or family	139	2.53	0.58	61	2.46	0.59	200	2.51	0.58	0.74	.756
Orbitz.com	102	2.32	0.62	49	2.35	0.60	151	2.33	0.61	-0.22	.823
Travelocity.com	117	2.40	0.53	54	2.39	0.53	171	2.40	0.53	0.15	.902
Cheaptickets.com	57	2.12	0.76	27	2.37	0.69	84	2.20	0.74	-1.44	.921
Hotwire.com	40	2.30	0.65	12	2.17	0.72	52	2.27	0.66	0.61	.969
Travel websites	132	2.53	0.54	46	2.52	0.55	178	2.53	0.54	0.09	.990

¹Based on vacation trip taken in the previous 12 months; ²Helpfulness rated only by those respondents who indicated they had used the booking source; ³Based on a three point scale where 1 = *not helpful* and 3 = *very helpful*.

Pre-trip behaviors. Table 35 summarizes pre-trip behaviors respondents reported they implemented prior to their last vacation trip. More than half of the respondents indicated they purchased travel guide books (59%) and read books about the local culture (57%) before their last trip. The majority of both groups purchased guidebooks (HATs 61% and SATs 55%); read books about the local culture (HATs 59% and SATs 53%); and got into good physical shape (HATs 48% and SATs 36%). One-

third of SATs purchased new luggage or gear and more than one-quarter (26%) learned some of the local language before traveling. HATs also purchased new luggage or gear (38%) and learned some of the local language (32%).

Results of Chi-square analyses indicated a significant difference for getting into good physical shape $\chi^2(1, N = 316) = 4.15, p < .05$. The HAT group was more likely to get into good physical shape prior to vacation than the SAT group. No significant difference was found for other pre-trip behaviors.

Table 35

Pre-trip behavior

Pre-trip Activities ¹	Hard Adventure Traveler (<i>n</i> = 200) %	Soft Adventure Traveler (<i>n</i> = 116) %	All Travelers (<i>N</i> = 316) %	χ^2	Sig.
Got into good physical shape	48.0	36.2	43.7	4.15 ²	.042
Purchased travel guide books	61.5	55.2	59.2	1.22	.270
Read books about the local culture	59.0	52.6	56.6	1.23	.267
Purchased new luggage/gear	38.0	31.9	35.8	1.19	.275
Watched programs on the local culture	21.0	27.6	23.4	1.78	.183
Learned some of the local language	32.0	25.9	29.7	1.32	.250

¹Based on vacation trip taken in the previous 12 months; ²*df* = 1.

Communication types for sharing travel experiences. A summary of communication types respondents used to share travel experiences during and after vacation are summarized in Table 36. Results indicate telling stories (89%) is by far the most common communication type for all traveler types. Electronic communication sources continue to be more commonplace among travelers with many reporting posting photos on-line after a trip (45%), however, results suggest that the tradition of sending postcards by mail (49%) continues to play an important format for travelers to share

travel experiences. An almost equal amount of HATs (49%) and SATs (48%) indicated they mail postcards when they travel. Blogs were used most by HAT, but the results still suggest a low number of respondents using blogs to communicate their travel experiences during or after their trip.

A Chi-square test was performed to examine the relation between HATs and SATs and the types of communication used during and after vacation trips. The relation between posting photos on-line after a trip was significant, $\chi^2(1, N = 317) = 4.22, p < .05$. HATs were more likely to post photos on-line than were SATs.

Table 36

Communication Types Used During and After a Vacation Trip

Communication Type Used ¹	Hard Adventure Traveler (<i>n</i> = 200) %	Soft Adventure Traveler (<i>n</i> = 117) %	All Travelers (<i>N</i> = 317) %	χ^2	Sig.
Posting photos on-line <i>after</i> trip	49.5	37.6	45.1	4.22 ²	.040
Blog diary <i>after</i> trip	5.0	1.7	3.8	2.19	.139
Telling stories	90.0	86.3	88.6	0.99	.320
Blog diary <i>during</i> trip	5.5	3.4	4.7	0.71	.400
Posting photos on-line <i>during</i> trip	8.5	10.3	9.1	0.27	.601
Sending postcards by mail	49.5	47.9	48.9	0.08	.778

¹Based on vacation trip taken in the previous 12 months; ²*df* = 1.

Types of technology used during vacation. A summary of technologies used by respondents when traveling on a vacation during the past 12 months is provided in Table 37. Results indicate the camera/digital camera is the number one technology used by both respondent groups (SATs 93% and HATs 96%), followed closely by the mobile phone (SATs 76% and HATs 79%). HATs were most likely to use an I-Pod/MP3/MP4 player (45%) or a laptop with wireless access (43%). One-quarter of SATs used a Global Positioning System (GPS) and slightly more HATs (30%) used a GPS.

The percentage of respondents who used an I-pod/MP3/MP4 player differed by SAT and HAT groups, $\chi^2(1, N = 319) = 17.01, p < .01$. Results showed HATs were two times more likely than SATs to have used an I-pod/MP3/MP4 player on their last vacation trip (SATs 22% and HATs 45%). The percentage of participants that used Internet cafés or wireless areas also differed by respondent groups, $\chi^2(1, N = 319) = 6.17, p < .05$. Results indicated the HAT group was 14% more likely than the SAT group to use an Internet café or wireless areas during their last vacation trip (SATs 37% and HATs 51%). See Appendix N for a list of other technologies used by respondents.

Table 37

Technologies Used During Vacation Trip

Technology Used ¹	Hard Adventure Traveler (n = 203) %	Soft Adventure Traveler (n = 116) %	All Travelers (N = 319) %	χ^2	Sig.
I-Pod/MP3/MP4 player	44.6	21.6	36.3	17.01 ²	.000
Internet café or wireless areas	51.5	37.1	46.3	6.17	.013
Camera/Digital camera	96.1	93.1	95.0	1.38	.240
Mobile phone	79.4	75.9	78.1	0.54	.460
Laptop computer w/ wireless access	42.6	33.6	39.4	2.52	.112
Global Positioning System	31.4	25.0	29.1	1.46	.227
Cellular phone with Internet access	17.2	15.5	16.6	0.14	.704
Cellular phone w/camera	44.1	36.2	41.3	1.91	.167
Pager	2.9	0.9	2.2	1.49	.222
Personal digital assistant	16.7	16.4	16.6	0.00	.947
Personal digital assistant w/Internet	7.4	9.5	8.1	0.45	.503
Laptop computer	40.7	32.8	37.8	1.98	.160
Desktop computer	22.1	19.0	20.9	0.43	.513
Global Positioning System in vehicle	22.5	20.7	21.9	0.15	.699
On Star service in vehicle	3.0	5.2	3.8	1.00	.317

¹Based on vacation trip taken in the previous 12 months; ²df = 1.

Helpfulness of technologies used during vacation trip. Those respondents who reported using technologies on a vacation trip during the previous 12 months were asked

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to rate the helpfulness of the technology (1 = not helpful, 2 = somewhat helpful, and 3 = very helpful) and results are presented in Table 38.

The most helpful technology used during vacation was camera/digital camera was ($M = 2.90$, $SD = 0.30$). SATs reported camera/digital camera to be the most helpful technology ($M = 2.85$, $SD = 0.36$) followed by mobile phone ($M = 2.72$, $SD = 0.53$). HATs also reported the most helpful technology used to be the camera/digital camera ($M = 2.92$, $SD = 0.26$) followed by PDA with Internet ($M = 2.92$, $SD = 0.28$).

Significant differences between traveler groups were found for helpfulness of camera/digital camera $t(282) = 2.07$, $p < .01$ and use of internet café or wireless areas $t(136) = 1.79$, $p < .01$. HATs reported cameras/digital cameras and an internet café or wireless areas as more helpful than SATs.

Table 38

Mean Scores of Helpfulness of Technologies Used During Vacation Travel

Technology Used ¹	Hard Adventure Travelers			Soft Adventure Travelers			All Travelers			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Camera digital camera	186	2.92 ²	0.26	98	2.85	0.36	284	2.90	0.30	2.07	.000
Internet cafe or wireless areas	98	2.73	0.44	40	2.58	0.55	138	2.69	0.48	1.79	.002
PDA assistant w/ Internet	13	2.92	0.28	9	2.56	0.73	22	2.77	0.53	1.67	.002
Laptop computer w/wireless	80	2.78	0.45	35	2.60	0.60	115	2.72	0.50	1.72	.003
Mobile phone	152	2.82	0.44	79	2.72	0.53	231	2.78	0.47	1.44	.008
On Star service in vehicle	6	2.50	0.84	3	3.00	0.00	9	2.67	0.71	-1.00	.029
Global Positioning System in vehicle	44	2.82	0.39	21	2.71	0.46	65	2.78	0.41	0.94	.079
ipod Mp3 Mp4 player	84	2.54	0.63	22	2.64	0.49	106	2.56	0.60	-0.69	.097
Personal digital assistant	29	2.59	0.50	16	2.56	0.73	45	2.58	0.58	0.13	.118
Global Positioning System	62	2.71	0.46	25	2.64	0.57	87	2.69	0.49	0.60	.136
Laptop computer	75	2.72	0.45	34	2.68	0.53	109	2.71	0.48	0.44	.246
Cellular phone w/camera	86	2.14	0.72	38	2.24	0.67	124	2.17	0.71	-0.70	.821
Cellular phone w/Internet	34	2.62	0.65	17	2.47	0.62	51	2.57	0.64	0.77	.828
Desktop computer	39	2.62	0.54	18	2.44	0.51	57	2.56	0.53	1.12	.989
Pager	6	1.83	0.75	0	0.0	0.0	6	1.83	0.75	-	-

¹ Technolgy used on vacation trip taken in the previous 12 months; ² Helpfulness rated only by those respondents who indicated they had used the booking source, based on a three point scale where 1 = not helpful and 3 = very helpful.

Lifestyle changes resulting from a vacation travel experience. Lifestyle

changes resulting from a vacation travel experience are presented in Table 39.

Respondents indicated the primary lifestyle change they experienced after a vacation was a change in attitude about cultures/places with almost half of SATs (47%) and more than half of HATs (55%) reporting a new attitude about cultures/places following a vacation travel experience. Both traveler type groups indicated interest in healthy habits (SATs 41% and HATs 51%) and diet and cuisine (SATs 37% and HATs 47%) as lifestyle changes impacted by travel. More than one-quarter of each traveler type group indicated donating money to a charity or cause as a result of a vacation travel experience (SATs 26% and HATs 28%). Chi-square tests indicated no significant difference between groups for lifestyle changes resulting from vacation travel experiences.

See Appendix O for a list of additional lifestyle changes respondents indicated having experienced after their last vacation trip.

Table 39

Lifestyle Change as a Result of Vacation Travel Experience

Lifestyle Change ¹	Hard Adventure Traveler (n = 119) %	Soft Adventure Traveler (n = 205) %	All Travelers (N = 324) %	χ^2	Sig.
Attitude changed about cultures/places	55.4	46.6	52.2	2.32 ²	.128
Interested in healthy habits	51.5	40.9	47.6	3.31	.069
Interested in diet and cuisine	47.1	37.1	43.4	3.00	.083
Donated money to a charity or cause	28.4	26.1	27.6	0.20	.653
Volunteered time or resources	20.1	17.4	19.1	0.35	.555
A new recreation activity at home	18.6	11.2	15.9	3.04	.081
Learned a new language	9.3	6.9	8.4	0.56	.455

¹Based on vacation trip taken in the previous 12 months; ²df = 1.

Descriptive Statistics Personality Traits

Descriptive information for variables used in the data analyses are presented followed by results of the factor analyses conducted to determine the measures of ATP.

The 3M Model of motivation and personality provides the structure for the placement of the personality variables in this research. Based on hierarchical approaches to personality (e.g., Allport, 1937), traits are arranged a priori in a four-level hierarchy consisting of elemental, compound, situational, and surface traits. Descriptive statistics for each of the elemental, compound, situational, and surface traits are provided below.

Elemental Level Traits

Elemental traits result from genetics and the early learning history of the individual. Descriptive statistics for the eight elemental traits; openness to experience, conscientiousness, extraversion, agreeability, emotional stability, material needs, the need for arousal, and physical/body needs are provided in Table 40. See Appendix P for the descriptive statistics for items comprising each of the eight elemental traits.

Overall, the elemental traits with the highest mean scores were: agreeability ($M = 6.97$, $SD = 1.18$), openness to experience ($M = 6.72$, $SD = 1.41$), and conscientiousness ($M = 6.67$, $SD = 1.39$). HATs had the highest mean scores for the same elemental traits in the same order: agreeability ($M = 6.96$, $SD = 1.19$), openness to experience ($M = 6.92$, $SD = 1.38$), and conscientiousness ($M = 6.75$, $SD = 1.37$). For SATs the top traits with the highest mean score were the same, however, the order was slightly different: agreeability ($M = 6.99$, $SD = 1.17$), conscientiousness ($M = 6.51$, $SD = 1.42$), and openness to experience ($M = 6.38$, $SD = 1.41$).

An independent sample *t*-test was conducted to compare elemental traits for HATs and SATs. There was no significant difference in the scores for elemental traits.

Table 40

Descriptive Statistics for Elemental Traits

Elemental Traits	Hard Adventure Traveler			Soft Adventure Traveler			All Travelers			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Introversion	202	3.83 ¹	1.61	115	4.09	1.66	317	3.92	1.63	-1.38	.781
Conscientiousness	202	6.75	1.37	115	6.51	1.42	317	6.67	1.39	1.47	.949
Openness to Experience	202	6.92	1.38	114	6.38	1.41	316	6.72	1.41	3.27	.757
Agreeability	202	6.96	1.19	115	6.99	1.17	317	6.97	1.18	-0.20	.517
Neuroticism	202	4.07	1.53	114	4.15	1.49	316	4.10	1.51	-0.41	.663
Need for Arousal	203	6.06	1.63	114	5.01	1.72	317	5.68	1.74	5.38	.276
Physical Resources/Body Needs	203	6.05	1.65	114	5.69	1.70	317	5.92	1.67	1.84	.669
Material Needs	203	3.74	1.85	114	3.82	1.78	317	3.77	1.82	-0.36	.520

¹Based on a nine-point scale where respondents indicated how often the characteristic describes how they see themselves in everyday life, 1 = *never* and 9 = *always*.

Compound Level Traits

Compound traits are assumed to result from the effects of elemental traits as well as from cultural and sub-cultural influences. In the current study, the compound traits of competitiveness, altruism, and need for learning were identified a priori. Descriptive statistics of the compound measures are provided in Table 41. See Appendix P for the descriptive statistics for items making up each of the three compound traits.

Competitiveness. The trait competitiveness is defined as “the enjoyment of interpersonal competition and desire to win and be better than others” (Spence & Helmreich, 1983, p. 41). Respondents reported the lowest mean scores competitiveness ($M = 4.59$, $SD = 2.13$). However, HATs ($M = 4.74$, $SD = 2.07$) reported slightly higher mean scores for competitiveness compared to SATs ($M = 4.32$, $SD = 2.22$). Independent

sample *t*-test found no significant difference between groups and the compound trait competitiveness.

Altruism. The compound trait altruism is defined by Mowen and Sujan (2005) as “a general predisposition to selflessly seek to help others” (p. 173). The second highest mean score was reported for altruism ($M = 6.19$, $SD = 1.38$). HATs ($M = 6.27$, $SD = 1.39$) had slightly higher mean scores than SATs ($M = 6.05$, $SD = 1.35$). An independent sample *t*-test indicated no significant difference between groups and the compound trait altruism.

Need for learning. The compound trait need for learning is defined as “enduring disposition to seek information resources” (Mowen, 2000, p. 72). Need for learning was the compound trait with the highest mean score ($M = 6.93$, $SD = 1.39$). HATs had the highest mean score for need for learning ($M = 7.07$, $SD = 1.17$), as did SATs ($M = 6.68$, $SD = 1.68$).

An independent sample *t*-test was conducted to compare the need for learning trait for HATs and SATs. There was a significant difference in the scores for need for learning for HATs ($M = 7.07$, $SD = 1.17$) and SATs ($M = 6.68$, $SD = 1.68$); $t(315) = 2.41$, $p < .05$. Results suggest HATs have a higher need for learning.

Table 41

Descriptive Statistics for Compound Traits

Compound Traits	Hard Adventure Traveler			Soft Adventure Traveler			All Travelers			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Competitiveness	203	4.74 ¹	2.07	114	4.32	2.22	317	4.59	2.13	1.67	.096
Altruism	203	6.27	1.39	114	6.05	1.35	317	6.19	1.38	1.37	.438
Need for learning	203	7.07	1.17	114	6.68	1.68	317	6.93	1.39	2.41	.050

¹Based on a nine-point scale where respondents indicated how often the characteristic describes how they see themselves in everyday life, 1 = *never* and 9 = *always*.

Situational Level Traits

Situational traits are differentiated from elemental and compound traits because they operate within a situational context. Situational traits identified in the current study are interest in cultural experiences, need for uniqueness, and fashion leadership. A summary of the descriptive statistics for each of the situational traits is provided in Table 42. See Appendix P for the descriptive statistics for items making up each of the three situational traits.

Table 42

Descriptive Statistics Situational Traits

Situational Traits	Hard Adventure Traveler			Soft Adventure Traveler			All Travelers			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Interest in Cultural Experiences	203	7.05 ¹	1.32	114	6.31	1.54	317	6.79	1.44	4.50	.121
Need for Uniqueness	202	2.72 ²	0.67	116	2.60	0.64	318	2.67	0.66	1.52	.476
Fashion Leadership	203	1.95 ²	.767	116	1.89	.691	319	1.93	0.74	0.78	.275

¹Based on a nine-point scale where respondents indicated how often the characteristic describes how they see themselves in everyday life, 1 = *never* and 9 = *always*; ²Based on a five-point scale where respondents indicated their level of agreement with each statement, 1 = *strongly disagree* and 5 = *strongly agree*.

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Interest in cultural experiences. Interest in cultural experiences is defined as activities that comprise the mosaic of places, traditions, art forms, celebrations, and experiences portraying the beauty of a country and its people, reflecting the diversity and character of the country (Tran & Ralston, 2006). Similar to the measure of arts and humanities (Mowen & Carlson, 2003) the trait was proposed to be a situational trait.

The trait interest in cultural experiences was the situational trait that respondents reported the highest mean score was ($M = 6.79$, $SD = 1.44$). Results suggest that both SAT and HAT traveler groups are interested in travel to gain cultural experiences such as those that result from exposure to indigenous people, trying local foods and customs, and diverse destinations. Independent sample *t*-tests were used to examine differences between groups and interest in cultural experiences. While significant differences were found for some of the individual items, no significant difference in HAT and SAT scores for the interest in cultural experiences was found.

Need for uniqueness. Need for uniqueness is defined as an individual's pursuit of differentness relative to others that is achieved through the acquisition, utilization, and disposition of consumers goods for the purpose of developing and enhancing one's personal and social identity (Tian et al., 2001). Results suggest adventure travelers have a need to be distinctive and special. However, results indicate that SATs and HATS prefer a moderate level of self-distinctiveness because they still have needs for social acceptance, approval, and validation as well as a need for uniqueness. SATs ($M = 3.19$, $SD = 1.00$) and HATs ($M = 3.27$, $SD = 1.04$) reported that they buy to communicate their uniqueness and dislike products bought by everyone (SAT group $M = 2.94$, $SD = 0.93$

and HAT group $M = 3.09$, $SD = 0.94$). Significance tests resulted in no differences between groups for need for uniqueness.

Fashion leadership. The situational trait fashion leadership is described by Goldsmith et al. (1993) as an individual's interest to learn about fashions earlier than the average buyer and purchase new items soon after they are introduced to the market. Respondents indicated they were confident in their ability to recognize fashion trends - SATs (60% agree or strongly agree) and HATs (57% agree or strongly agree) – however, results suggest fashion was of little interest to adventure travelers. In fact, the majority of SATs (89%) and HATs (86%) indicated they do not spend a lot of time on fashion-related activities confirming adventure travelers are not focused on fashion trends.

An independent sample t -test was employed to ascertain differences between fashion leadership and traveler types. Significant differences were found between traveler groups and individual items such as regarding their confidence in their ability to recognize fashion trends, $t(317) = 1.28$, $p < .01$. However, the overall measure of fashion leadership was not significant. While not fashion leaders, results suggest adventure travelers can identify trends, with HATs indicated the highest level of agreement. These results may suggest that while adventure travelers are aware of fashion trends, it is not necessarily an important part of their identity.

Table 43 provides a summary of the highest mean score for each of the eight personality traits hypothesized to be associated with ATP. Overall, the top personality trait for all travelers was the elemental trait agreeability ($M=6.97$, $SD=1.18$). For HATs the top trait was the compound trait need for learning ($M=7.07$, $SD=1.17$) and the elemental trait agreeability was the top trait for SATs ($M=6.99$, $SD=1.17$).

Table 43

Summary Mean Scores for Personality Traits

Personality Trait	Hard Adventure Traveler (n=225)	Soft Adventure Traveler (n=114)	All Travelers (N=339)	Trait Level		
	Mean (SD)	Mean (SD)	Mean (SD)	E	C	S
Agreeability	6.96 (1.19) ¹	6.99 (1.17)	6.97 (1.18)	X		
Need for learning	7.07 (1.17) ¹	6.68 (1.68)	6.93 (1.39)		X	
Interest in cultural experiences	7.05 (1.32) ¹	6.31 (1.54)	6.79 (1.44)			X
Altruism	6.27 (1.39) ¹	6.05 (1.35)	6.19 (1.38)		X	
Need for arousal	6.06 (1.63) ¹	5.01 (1.72)	5.68 (1.74)	X		
Competitiveness	4.74 (2.07) ¹	4.32 (2.22)	4.59 (2.13)		X	
Need for uniqueness	2.72 (0.67) ²	2.60 (0.64)	2.67 (0.66)			X
Fashion leadership	1.95 (0.77) ²	1.89 (0.69)	1.93 (0.74)			X

¹Based on a 9 point scale 1=*never* and 9=*always*; ²Based on a 5 point scale 1=*strongly agree* to 5=*strongly disagree*. E=Elemental trait; C=Compound trait; S=Situational trait; ST=Surface trait.

Surface Level Traits

At the fourth level of the hierarchy are surface traits. Surface traits “delineate the programs of behavior that individuals carry out in order to complete tasks” (Mowen, 2000, p. 21). These traits are a result of person, by situation, by product category interactions. Surface traits result from the effects of elemental, compound, and situational traits as well as from the influence of the context specific environment.

A new scale was developed for this study to measure ATP, as a function of adventure travel experiences. ATP is conceptualized as a surface level trait because of its specificity. ATP represents an enduring disposition, not a specific act or behavior. A 24-item scale consisting of dream travel experiences was developed and factor analysis was employed to determine the underlying factors of ATP. Descriptive statistics dream travel experiences are summarized in Table 44. The top dream travel experiences reported by the SAT group were getting off the beaten track ($M = 3.75$, $SD = 1.15$), exploring the ancient civilization of Mayans ($M = 3.62$, $SD = 1.35$), rafting in the Grand Canyon ($M =$

3.58, $SD = 1.42$), and visiting the pyramids in Egypt ($M = 3.55$, $SD = 1.45$). SATs were less likely than HATs to dream about rock climbing on every continent ($M = 1.35$, $SD = 0.80$).

Dream travel experiences reported by HATs were getting off the beaten track ($M = 4.41$, $SD = 0.98$), hiking in a rainforest ($M = 4.24$, $SD = 1.06$), visiting the pyramids of Egypt ($M = 4.17$, $SD = 1.19$), and exploring the ancient civilization of Mayans ($M = 4.15$, $SD = 1.15$). HATs were less likely than SATs to dream about cliff diving in Jamaica ($M = 1.88$, $SD = 1.22$).

Independent sample *t*-test was employed to examine differences between traveler type groups and dream travel experiences. Significant differences were found in 16 of the 24 dream travel experiences. In all 16 cases, HATs scored the highest mean values, suggesting they have greater dream travel experience aspirations. See Appendix Q for a list of additional dream travel experiences reported by respondents.

Table 44

Mean Scores Dream Travel Experiences

Items	Hard Adventure Travelers			Soft Adventure Travelers			All Travelers			<i>t</i>	Sig.
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Running with the bulls in Spain	202	1.98 ¹	1.33	116	1.46	0.91	318	1.79	1.22	3.72	.000
Rock climbing on every continent	202	2.15	1.38	115	1.35	0.80	317	1.86	1.26	5.74	.000
Swimming in every ocean	202	2.87	1.58	115	1.90	1.25	317	2.51	1.54	5.66	.000
Hiking in a rainforest	203	4.25	1.06	114	3.35	1.46	317	3.92	1.29	6.28	.000
Snorkeling the Great Barrier Reef	202	3.97	1.40	117	3.08	1.69	319	3.64	1.57	5.06	.000
Going on a safari in Africa	202	3.97	1.37	118	3.25	1.59	320	3.71	1.49	4.25	.000
Rafting in the Grand Canyon	203	4.11	1.20	116	3.58	1.42	319	3.92	1.30	3.56	.001
Visiting the pyramids in Egypt	202	4.17	1.19	117	3.55	1.45	319	3.94	1.32	4.18	.001
Relaxing on the white beaches of Bora-Bora	203	3.73	1.37	115	3.21	1.61	318	3.54	1.48	3.08	.001
Exploring the ancient civilization of Mayans	203	4.15	1.15	117	3.62	1.35	320	3.96	1.25	3.78	.004
Visiting a market in India	202	2.94	1.51	115	2.03	1.30	317	2.61	1.50	5.42	.007
Camping in Glacier National Park	203	3.86	1.33	116	3.38	1.49	319	3.68	1.40	2.96	.009
Cage-diving with Great White Sharks	201	2.11	1.35	115	1.68	1.20	316	1.95	1.31	2.84	.018
Walking the ancient paths of China	203	3.74	1.38	115	3.06	1.53	318	3.50	1.47	4.08	.030
Getting off the beaten track	203	4.41	0.98	115	3.75	1.15	318	4.17	1.09	5.46	.036
Bicycling across the USA	199	2.52	1.55	116	2.07	1.44	315	2.36	1.52	2.58	.049
Surf fishing on the beach at Cape Hatteras	201	1.93	1.25	115	1.63	1.10	316	1.82	1.21	2.07	.073
Cliff diving in Jamaica	201	1.88	1.22	115	1.62	1.11	316	1.78	1.19	1.87	.133
Hiking in rural Ireland	203	3.76	1.30	117	3.20	1.39	320	3.55	1.36	3.64	.150
Staying at a hot spring spa in Japan	201	2.04	1.32	116	1.71	1.24	317	1.92	1.30	2.25	.157
Visiting the Seven Wonders of the World	201	3.68	1.43	116	3.14	1.54	317	3.48	1.49	3.16	.213
Visiting all the seven continents	201	3.59	1.54	117	2.99	1.58	318	3.37	1.58	3.31	.734
Making snow angels in Alaska	201	3.15	1.56	116	2.78	1.52	317	3.01	1.55	2.07	.855
Shopping in Paris	202	2.64	1.46	117	2.45	1.45	319	2.57	1.46	1.09	.963

¹ Based on a five-point scale where respondents indicated whether they have dreamed of having the experience 1 = *not at all* and 5 = *absolutely*.

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A summary of the top dream travel experiences for each traveler group are provided in Tables 45, 46, and 47. Getting off the beaten track was the top dream travel experience for the traveler type groups. Mean scores for the HAT group were consistently higher than those of SATs.

Table 45

Top Mean Scores for Dream Travel Experiences-Hard Adventure Travelers

Items	<i>n</i>	Hard Adventure Traveler <i>M (SD)</i>
Getting off the beaten track	203	4.41 ¹ (0.98)
Hiking in a rainforest	203	4.25 (1.06)
Visiting the pyramids in Egypt	202	4.17 (1.19)
Exploring the ancient civilization of Mayans	203	4.15 (1.15)

¹Based on a five-point scale where respondents indicated whether they have dreamed of having the experience 1 = *not at all* and 5 = *absolutely*.

Table 46

Top Mean Scores for Dream Travel Experience-Soft Adventure Travelers

Items	<i>n</i>	Soft Adventure Travelers <i>M (SD)</i>
Getting off the beaten track	115	3.75 ¹ (1.15)
Exploring the ancient civilization of Mayans	117	3.62 (1.35)
Rafting in the Grand Canyon	116	3.58 (1.42)
Visiting the pyramids in Egypt	117	3.55 (1.45)

¹Based on a five-point scale where respondents indicated whether they have dreamed of having the experience 1 = *not at all* and 5 = *absolutely*.

Table 47

Top Mean Scores for Dream Travel Experiences-All Adventure Travelers

Items	<i>N</i>	All Travelers <i>M (SD)</i>
Getting off the beaten track	318	4.17 ¹ (1.09)
Exploring the ancient civilization of Mayans	320	3.96 (1.25)
Visiting the pyramids in Egypt	319	3.94 (1.32)
Rafting in the Grand Canyon	319	3.92 (1.30)

¹Based on a five-point scale where respondents indicated whether they have dreamed of having the experience 1 = *not at all* and 5 = *absolutely*.

Factor Analysis

The final sample size of 339 satisfied the minimum requirement of sample size for principal component analysis with 24 variables; at least five times as many observations as variables are recommended (Hair et al., 1998). To find underlying dimensions of dream travel experiences, an Exploratory Factor Analysis (EFA) with principal component analysis and orthogonal rotation (VARIMAX) was employed. Principal component analysis is generally used when the research purpose is data reduction (to reduce the information in many measured variables into a smaller set of components). Factor loadings were examined to identify the appropriateness of items under each derived factor. Additionally, the reliability of the items measuring each factor was assessed for the final factor solution.

Principal component analysis with an orthogonal rotation (VARIMAX) produced the first estimation with five factors by using the default eigenvalues of one as a cutoff. According to Hair et al. (1998), factors having eigenvalues greater than one are considered significant and most reliable when the number of variables is between 20 and 50 (Hair et al., 1998). The five factor solution explained 57% of the variance which is considered satisfactory in social sciences. However, five variables – bicycling across the USA, surf fishing on the beach in Cape Hatteras, hiking in rural Ireland, shopping in Paris, and swimming in every ocean – failed to correlate with any factor significantly and thus were removed. After removing the five variables, four factors resulted from VARIMAX rotation, again using eigenvalues greater than one as a cutoff.

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Four factors explaining 58.2% of the variance emerged from the factor analysis of 19 dream travel experience items (Table 48). Each factor was named based on the common characteristics of the variables included.

The first factor was labeled “ultimate destination experiences” since all of the experiences involved visiting unique/exceptional destinations. The seven items in factor one were: visiting all the seven continents, visiting the Seven Wonders of the World, visiting the pyramids in Egypt, going on a safari in Africa, walking down the ancient paths of China, visiting a market in India, and staying at a hot spring spa in Japan. All items had high/acceptable loadings. This factor had an eigenvalue of 3.82 and explained 20.1% of the total variance. This factor had a reliability alpha of 0.86.

The second factor was labeled “tropical adventure experiences” given the focus on tropical settings. The four variables in factor two were: snorkeling the Great Barrier Reef, relaxing on the white beaches of Bora Bora, hiking in a rainforest, and exploring the ancient civilizations of Mayans. All items had high/acceptable loadings. This factor had an eigenvalue of 2.62 and explained 13.8% of the total variance. The reliability alpha of this factor was 0.77.

The third factor had high/acceptable loadings for four items: cliff diving in Jamaica, cage diving with great white sharks, running with the bulls in Spain, and rock climbing on every continent. Given the focus on difficult/challenging activities, this factor was labeled “extreme adventure experiences.” Factor three had an eigenvalue of 2.49 and explained 13.1% of the total variance. The reliability alpha was 0.76.

The fourth factor had high/acceptable loadings for four times: camping in Glacier National Park, making snow angels in Alaska, rafting in the Grand Canyon, and getting

off the beaten track. Since all four items involved traditional outdoor adventure activities or experiences in North America, this factor was labeled “traditional outdoor adventure experiences.” The fourth factor had an eigenvalue of 2.13 and explained 11.2% of the total variance. This factor had a reliability alpha of 0.66.

Table 48

Factor Analysis Dream Travel Experiences

Factors	Loadings	Eigen value	Percent of Variance Explained	Reliability Alpha
Ultimate Destination Experiences		3.82	20.1	0.86
Visiting all the seven continents	.79			
Visiting the Seven Wonders of the World	.77			
Visiting the pyramids of Egypt	.72			
Going on safari in Africa	.70			
Walking down the ancient paths of China	.69			
Visiting a market in India	.53			
Staying at a hot spring spa in Japan	.51			
Tropical Adventure Experiences		2.62	13.8	0.77
Snorkeling the Great Barrier Reef	.77			
Hiking in a rainforest	.69			
Relaxing on the white beaches of Bora Bora	.65			
Exploring the ancient civilizations of Mayans	.57			
Extreme Adventure Experiences		2.49	13.1	0.76
Cliff diving in Jamaica	.76			
Cage diving with Great White Sharks	.75			
Running with the Bulls in Spain	.69			
Rock climbing on every continent	.61			
Traditional Outdoor Adventure Experiences		2.13	11.2	0.66
Camping in Glacier National Park	.83			
Rafting in the Grand Canyon	.61			
Making snow angels in Alaska	.60			
Getting off the beaten track	.54			

Due to low factor loadings, five items (Bicycling across the USA, Surf fishing on the beach in Cape Hatteras, Hiking in rural Ireland, Shopping in Paris, and Swimming in every ocean) were excluded; Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization.

Next, composite scores were created for each of the four factors –ultimate destination experiences, tropical adventure experiences, extreme adventure experiences, and traditional outdoor adventure experiences – based on the mean of the items which had their primary loadings on each factor. Nineteen items were used to compute the four scales. These adventure experience factors exhibited moderate to good internal reliability, ranging between .66 and .86 (see Table 48). Participants rated the items based on whether they have dreamed of having the experience. An example item is “visiting all seven continents.” Responses were on a Likert-type scale, ranging from 1 = not at all to 5 = absolutely. Higher scores indicated greater interest in doing the dream travel experience. The skewness and kurtosis were well within tolerable range for assuming normal distribution and examination of the histograms suggested that the distributions looked approximately normal. Varimax rotation seeks to maximize the variances of the squared normalized factor loadings across variables for each factor. This is equivalent to maximizing the variances in the columns of the matrix of the squared normalized factor loadings.

Overall, these analyses indicate that four distinct factors were underlying dream travel experiences and that these factors were moderately internally consistent. An approximately normal distribution was evident for the composite score data in the current study, thus the data were well suited for parametric statistical analyses. Descriptive statistics with *t*-tests of the factors and items included are provided for each of the factors.

Ultimate destination experiences. Ultimate destination experiences involve visiting unique/exceptional destinations and included the following activities or experiences: going on a safari in Africa; visiting the pyramids in Egypt; visiting a market

in India; walking down the ancient paths of China; staying at a hot spring spa in Japan; visiting the Seven Wonders of the World; and visiting all the seven continents. The composite factor mean and item mean scores as well as *t*-tests for ultimate destination experiences are provided in Table 49.

For all respondents visiting the pyramids ($M = 3.94$, $SD = 1.32$), going on safari in Africa ($M = 3.71$, $SD = 1.49$), and visiting a market in India ($M = 3.71$, $SD = 1.49$) were dream travel experiences. For the SAT group visiting pyramids in Egypt ($M = 3.55$, $SD = 1.45$) and going on a safari in Africa ($M = 3.25$, $SD = 1.59$) were top dream travel experiences. Top dream experiences for HATs were also visiting pyramids in Egypt ($M = 4.17$, $SD = 1.19$) and going on a safari in Africa ($M = 3.97$, $SD = 1.37$) however, their mean scores were much higher than SATs. HATs also had high mean scores for walking down the ancient paths of China ($M = 3.97$, $SD = 1.37$) and visiting the Seven Wonders of the World ($M = 3.68$, $SD = 1.43$)

An independent sample *t*-test was conducted to compare dream travel experiences for HATs and SATs. There was a significant difference in the scores for all four of the individual items making up ultimate destination experiences; going on a safari in Africa, , $t(317) = 4.25$, $p < .01$, visiting the pyramids in Egypt, , $t(317) = 4.18$, $p < .01$, visiting a market in India, $t(317) = 5.42$, $p < .01$, and walking down the ancient paths of China, $t(317) = 4.08$, $p < .01$. In all cases HATs had higher mean scores. There was no significant difference between groups for the factor ultimate destination experiences.

Table 49

Mean Scores for Factors and Items-Ultimate Destination Experiences/ATP

	Hard Adventure Traveler			Soft Adventure Traveler			All Travelers			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Composite Factor Mean	203	3.45 ¹	1.02	118	2.84	1.10	321	3.23	1.09	5.03	.345
Going on a safari in Africa	202	3.97	1.37	118	3.25	1.59	320	3.71	1.49	4.25	.000
Visiting the pyramids in Egypt	202	4.17	1.19	117	3.55	1.45	319	3.94	1.32	4.18	.001
Visiting a market in India	202	2.94	1.51	115	2.03	1.30	317	2.61	1.50	5.42	.007
Walking down the ancient paths of China	203	3.74	1.38	115	3.06	1.53	318	3.50	1.47	4.08	.030
Staying at a hot spring spa in Japan	201	2.04	1.32	116	1.71	1.24	317	1.92	1.30	2.25	.157
Visiting the Seven Wonders of the World	201	3.68	1.43	116	3.14	1.54	317	3.48	1.49	3.16	.213
Visiting all the seven continents	201	3.59	1.54	117	2.99	1.58	318	3.37	1.58	3.31	.734

¹Based on a five-point scale where respondents indicated whether they have dreamed of having the experience 1 = *not at all* and 5 = *absolutely*.

Tropical adventure experiences. Tropical adventure experiences focus on tropical settings and included the following activities or experiences: hiking in a rainforest, snorkeling the Great Barrier Reef; relaxing on the white beaches of Bora-Bora; and exploring the ancient civilization of Mayans. The composite factor mean and item mean scores as well as *t*-tests for topical adventure experiences are provided in Table 50.

For all respondents exploring the ancient civilizations of Mayans ($M = 3.96$, $SD = 1.23$) and hiking in a rainforest ($M = 3.92$, $SD = 1.29$) were the top dream travel experiences. In the case of the HAT group, hiking in a rainforest ($M = 4.25$, $SD = 1.06$) was top followed by exploring the ancient civilizations of Mayans ($M = 4.15$, $SD = 1.15$). Top dream experiences for SATs exploring the ancient civilizations of Mayans ($M = 3.62$, $SD = 1.35$) was first and second was hiking in a rainforest ($M = 3.92$, $SD = 1.29$).

An independent sample *t*-test was conducted to compare dream travel experiences for HATs and SATs. A significant difference between groups was found for all four of the dream travel experiences that made up the tropical adventure experience factor. HATS and SATs were significantly different for tropical adventure experiences with scores for HATs ($M=4.04$, $SD=0.91$) higher than those of SATs ($M=3.33$, $SD=1.22$); $t(317) = 5.82$, $p < .01$.

Table 50

Mean Scores for Factors and Items-Tropical Adventure Experience/ATP

	Hard Adventure Traveler			Soft Adventure Traveler			All Travelers			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Composite Factor Mean	203	4.03 ¹	0.91	118	3.33	1.22	321	3.77	1.09	5.82	.000
Hiking in a rainforest	203	4.25	1.06	114	3.35	1.46	317	3.92	1.29	6.28	.000
Snorkeling the Great Barrier Reef	202	3.97	1.40	117	3.08	1.69	319	3.64	1.57	5.06	.000
Relaxing on the white beaches of Bora-Bora	203	3.73	1.37	115	3.21	1.61	318	3.54	1.48	3.08	.001
Exploring the ancient civilization of Mayans	203	4.15	1.15	117	3.62	1.35	320	3.96	1.23	3.78	.004

¹Based on a five-point scale where respondents indicated whether they have dreamed of having the experience 1 = *not at all* and 5 = *absolutely*.

Extreme adventure experiences. Extreme adventure experiences focus on difficult/challenging activities and included the following activities or experiences: running with the bulls in Spain; rock climbing on every continent; and cage-diving with Great White Sharks. The composite factor mean and item mean scores as well as *t*-tests for extreme adventure experiences are provided in Table 51.

Of the four factors, the mean scores for extreme adventure experiences were the lowest. For all respondents cage diving with Great White Sharks ($M = 1.95$, $SD = 1.31$) and rock climbing on every continent ($M = 1.86$, $SD = 1.26$) received the highest mean

scores. HATs reported rock climbing on every continent ($M = 2.15$, $SD = 1.38$) as their top extreme adventure experience followed by cage diving with Great White Sharks ($M = 2.11$, $SD = 1.35$). The top extreme adventure experience for SATs was cage diving with Great White Shares ($M = 1.68$, $SD = 1.20$) followed by running with the bulls in Spain ($M = 1.46$, $SD = 0.91$).

An independent sample t -test was conducted to compare dream travel experiences for HATs and SATs. A significant difference between groups was found for all three of the dream travel experiences that make up the extreme adventure experience factor. HATS and SATs were significantly different for extreme adventure experiences with HATs having more interest in extreme adventure experiences; $t(317) = 4.64$, $p < .01$.

Table 51

Mean Scores for Factors and Items-Extreme Adventure Experiences/ATP

	Hard Adventure Traveler			Soft Adventure Traveler			All Travelers			t	Sig.
	n	M	SD	n	M	SD	N	M	SD		
Composite Factor Mean	202	2.03 ¹	0.99	116	1.53	0.78	318	1.84	0.95	4.64	.001
Running with the bulls in Spain	202	1.98	1.33	116	1.46	0.91	318	1.79	1.22	3.72	.000
Rock climbing on every continent	202	2.15	1.38	115	1.35	0.80	317	1.86	1.26	5.74	.000
Cage-diving with Great White Sharks	201	2.11	1.35	115	1.68	1.20	316	1.95	1.31	2.84	.018

¹Based on a five-point scale where respondents indicated whether they have dreamed of having the experience 1 = *not at all* and 5 = *absolutely*.

Traditional outdoor adventure experiences. Traditional outdoor adventure experiences involve outdoor recreation activities or experiences in North America and included the following activities or experiences: rafting in the Grand Canyon; camping in Glacier National Park; getting off the beaten track; and making snow angels in Alaska.

The composite factor mean and item mean scores as well as *t*-tests for traditional outdoor adventure experiences are provided in Table 52.

For all respondents getting off the beaten track ($M = 4.17$, $SD = 1.09$) and rafting the Grand Canyon ($M = 3.92$, $SD = 1.30$) were the top dream travel experiences. In the case of both the HAT and SAT groups, the top two were also getting off the beaten track and rafting the Grand Canyon.

An independent sample *t*-test was conducted to compare dream travel experiences for HATs and SATs. A significant difference between groups was found for three of the traditional outdoor adventure experiences; however HATS and SATs were not significantly different for the factor traditional outdoor adventure experiences.

Table 52

Mean Scores for Factors and Items-Traditional Outdoor Adventure Experiences/ATP

	Hard Adventure Traveler			Soft Adventure Traveler			All Travelers			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Composite Factor Mean	203	3.88 ¹	0.90	117	3.37	0.99	320	3.70	0.96	4.74	.168
Rafting in the Grand Canyon	203	4.11	1.20	116	3.58	1.42	319	3.92	1.30	3.56	.001
Camping in Glacier National Park	203	3.86	1.33	116	3.38	1.49	319	3.68	1.40	2.96	.009
Getting off the beaten track	203	4.41	0.98	115	3.75	1.15	318	4.17	1.09	5.46	.036
Making snow angels in Alaska	201	3.15	1.56	116	2.78	1.52	317	3.01	1.55	2.07	.855

¹Based on a five-point scale where respondents indicated whether they have dreamed of having the experience 1 = *not at all* and 5 = *absolutely*.

Hypotheses Testing

Hierarchical regressions are used to test the hypotheses. The results of the hypotheses tests are discussed in this section of the chapter.

Hierarchical Regression

To test the eight hypotheses, a series of hierarchical regression analyses were performed. The 3M Model provides the theoretical justification for the hierarchical ordering of variables; surface traits regressed on elemental, compound, and situational traits. The conceptual model of this research called for three estimated models. In the first model, the eight elemental traits were entered in the hierarchical regression. Due to the fundamental nature of the elemental traits, Mowen (2004) recommended that all of the elemental traits be included as control variables when analyzing the full hierarchical model since they are the building blocks for the more concrete-level traits. In addition, it reduce the likelihood of the omitted variable problem. That is, if all eight elemental traits are not included, it can appear as though a compound or situational trait is predicting a surface trait. However, when all eight elemental traits are added, the relationship disappears. Mowen and Voss (2008) refer to this phenomenon as 'illusory predication.' In the current study two elemental traits are proposed to be associated with ATP, need for arousal and agreeability.

In the second model, elemental traits were entered and were followed by the inclusion of the three compound traits, competitiveness, altruism, and need for learning. The third and final hierarchical model included the elemental traits, compound traits, and the addition of the three situational traits, interested in cultural experiences, need for uniqueness, and fashion leadership. Hierarchical regression models were estimated for

each of the four dependent variables (surface traits) were determined through factor analyses (ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences), each factor considered a measure of ATP.

First, H^1 and H^2 test the relationship between the elemental traits need for arousal and agreeability and the surface trait ATP. Next, $H^3 - H^5$ tests the relationship between the compound traits competitiveness, altruism, and need for learning and ATP. Finally, $H^6 - H^8$ tests the relationship between the situational traits interest in cultural experiences, need for uniqueness, and fashion leadership and ATP.

H^1 : The elemental trait *need for arousal* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^2 : The elemental trait *agreeability* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^3 : The compound trait *competitiveness* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^4 : The compound trait *altruism* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

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H^5 : The compound trait *need for learning* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^6 : The situational trait *interest in cultural experiences* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^7 : The situational trait *need for uniqueness* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

H^8 : The situational trait *fashion leadership* will positively influence ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences (ATP).

In multiple regression, the model takes the form of an equation that contains a coefficient (b) for each predictor. The beta or b -values indicate the individual contribution of each predictor to the model. The b -values show the relationship between ATP and each predictor. If the value is positive, there is a positive relationship between the predictor and the outcome whereas a negative coefficient represents a negative relationship (Field, 2008).

Each of the b -values has an associated standard error indicating the extent to which the values would vary across different samples. These standard errors are used to determine whether or not the b -value differs significantly from zero, using the t -statistic. Therefore, if the t -test associated with a b -value is significant then the predictor is making

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a significant contribution to the model. The smaller the significance value, and the larger the value of t , the greater the contribution of the predictor.

According to Field (2008), the b -values and their significance are important statistics to examine, however, the standardized version of the b -values are easier to interpret because they are not dependent on the units of measurement of the variables. The standardized beta values indicate the number of standard deviations that the outcome will change as a result of one standard deviation change in the predictor. The standardized beta values (β) are all measured in standard deviation units and thus are directly comparable. Therefore, they provide a better insight into the ‘importance’ of a predictor in the model (Field, 2008).

Ultimate destination experiences. In the first set of hierarchical regression analyses, the dependent variable was ultimate destination experiences, a measure of the surface trait, ATP. To identify differences in the adventure traveler subgroups, separate regression analyses were estimated for the HATs and SATs. Results for all travelers, as well as both the SAT and HAT traveler subgroups, are provided in Table 53. In all cases variance inflation factor (VIF) (≤ 1.95) and condition index (17.34) values were acceptable as they were below the recommended levels of 10 and 30, respectively (Hair et al., 1998). This indicates that multicollinearity was not an issue.

All travelers. The first model contained the elemental traits. Compound traits were added in the second model and the situational traits were added to the third to create the hierarchy. Model 1 was significant ($R^2 = .14, p < .001$) and four of the eight elemental traits were significantly related to ultimate destination experiences. Specifically, introversion (negative relationship) ($\beta = -.121, p < .05$), openness to experience ($\beta = .139$,

$p < .05$), need for arousal ($\beta = .233, p < .001$), and material needs ($\beta = .122, p < .05$) were statistically significant predictors of ultimate destination experiences. When the compound traits, competitiveness, altruism, and need for learning were added in Model 2, a significant increase was observed in the variance explained ($\Delta R^2 = .04, p < .01$). Significant predictors of ultimate destination experiences in Model 2 were two of the elemental traits, material needs ($\beta = .118, p < .05$) and need for arousal ($\beta = .229, p < .01$), and one compound trait, need for learning ($\beta = .183, p < .05$). In Model 2, openness to experience and introversion were no longer significant. Finally, in Model 3 the addition of the situational traits significantly increased the variance explained by the hierarchical regression equation ($\Delta R^2 = .14, p < .001$). In this final model, significant predictors of ultimate destination experiences were two elemental traits and two situational traits. The elemental traits were respondents' need for arousal ($\beta = .193, p < .01$) and physical resources (negative relationship) ($\beta = -.162, p < .01$). The situational traits were interest in cultural experiences ($\beta = .485, p < .001$), and fashion leadership ($\beta = .171, p < .01$).

Soft adventure travelers. The hierarchical regression undertaken for all travelers was repeated with the sub-set of travelers who were identified as SATs. Among SATs, neither Model 1 nor Model 2 was significant. However, Model 3 was significant as was the observed increase in the variance explained from Model 2 to Model 3 ($\Delta R^2 = .22, p < .001$). In this final model, significant predictors of ultimate destination experiences for SATs were the elemental trait physical resources (negative relationship) ($\beta = -.205, p < .05$) and the compound traits interest in cultural experiences ($\beta = .578, p < .001$) and fashion leadership ($\beta = .285, p < .01$).

Hard adventure travelers. The hierarchical regression was again completed for HATs only. As described earlier, the first model contained the elemental traits, the compound traits were added in the second model, and the situational traits were added to the third. Model 1 was significant ($R^2 = .14, p < .001$). Elemental traits: need for arousal ($\beta = .187, p < .05$) and openness to experience ($\beta = .223, p < .01$) were statistically significant predictors of ultimate destination experiences for HATs. When the compound traits of competitiveness, altruism, and need for learning were added in Model 2, a significant increase in the variance explained was obtained ($\Delta R^2 = .05, p < .01$). Significant predictors of ultimate destination experiences for HATs in Model 2 were the elemental trait need for arousal ($\beta = .196, p < .01$) and the compound trait need for learning ($\beta = .241, p < .01$). However, in Model 2, the elemental trait, openness to experience was no longer significant.

Finally, in Model 3 the situational traits significantly increased the variance explained ($\Delta R^2 = .08, p < .001$). In this final model, significant predictors of ultimate destination experiences were elemental traits of need for arousal ($\beta = .207, p < .01$) and physical resources (negative relationship) ($\beta = -.143, p < .05$) and the situational trait interest in cultural experiences ($\beta = .393, p < .001$). Unlike the SATs and all travelers, fashion leadership was not a significant predictor of ultimate destination experiences for the HAT subgroup.

Table 53

Results Hierarchical Regression Analyses: ST-Ultimate Destination Experiences/ATP

	Hard Adventure Travelers (<i>n</i> = 201)			Soft Adventure Travelers (<i>n</i> = 110)			All Travelers (<i>N</i> = 324)		
Model 1: <i>E</i>	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
(Constant)	1.918	.651		2.692	.976		1.931	.545	
<i>E</i> -Arousal	.119	.046	.187*	.089	.071	.143	.147	.038	.233***
<i>E</i> -Openness to Exp.	.164	.056	.223**	-.042	.081	-.056	.106	.047	.139*
<i>E</i> -Material Res.	.055	.038	.100	.132	.060	.220*	.072	.032	.122*
<i>E</i> -Introversion	-.063	.044	-.100	-.111	.063	-.172	-.080	.037	-.121*
<i>E</i> -Physical Res.	-.054	.047	-.085	-.063	.063	-.100	-.056	.038	-.085
<i>E</i> -Neuroticism	.024	.046	.037	.085	.070	.120	.045	.039	.064
<i>E</i> -Conscientiousness	-.035	.054	-.046	.023	.072	.030	-.006	.043	-.008
<i>E</i> -Agreeability	.025	.065	.030	-.036	.095	-.038	-.003	.005	-.004
Total R^2		.138***			.124			.136***	
Model 2: <i>E</i>+<i>C</i>									
(Constant)	1.204	.679		2.420	.966		1.490	.551	
<i>E</i> -Arousal	.125	.047	.196**	.054	.084	.086	.145	.041	.229***
<i>C</i> -Learning	.215	.071	.241**	.120	.072	.189	.144	.050	.183**
<i>E</i> -Material Res.	.075	.040	.137	.074	.070	.122	.070	.036	.118*
<i>E</i> -Introversion	-.049	.043	-.078	-.088	.063	-.136	-.068	.037	-.103
<i>E</i> -Physical Res.	-.048	.046	-.077	-.086	.063	-.138	-.063	.038	-.096
<i>E</i> -Neuroticism	.033	.045	.050	.107	.070	.150	.060	.039	.085
<i>C</i> -Altruism	.004	.065	.005	.172	.100	.197	.082	.055	.099
<i>C</i> -Competitiveness	-.063	.038	-.128	.012	.064	.024	-.043	.033	-.085
<i>E</i> -Agreeability	-.002	.073	-.002	-.126	.103	-.135	-.059	.060	-.064
<i>E</i> -Openness to Exp.	.097	.060	.132	-.101	.084	-.135	.044	.049	.058
<i>E</i> -Conscientiousness	-.053	.054	-.071	-.019	.073	-.025	-.024	.043	-.031
Total R^2		.192**			.178			.177**	
Total R^2 change		.054**			.054			.042**	
Model 3: <i>E</i>+<i>C</i>+<i>S</i>									
(Constant)	.597	.663		1.382	.925		.840	.519	
<i>S</i> -Interest Culture	.304	.068	.393***	.414	.080	.578***	.369	.050	.485***
<i>E</i> -Arousal	.132	.045	.207**	-.024	.078	-.038	.122	.038	.193**
<i>E</i> -Physical Res.	-.091	.045	-.143*	-.129	.057	-.205*	-.106	.036	-.162**
<i>S</i> -Fashion	.135	.105	.102	.436	.155	.285**	.248	.087	.171**
<i>E</i> -Neuroticism	.045	.043	.068	.073	.063	.103	.055	.036	.078
<i>S</i> -Uniqueness	-.079	.116	-.052	-.132	.161	-.076	-.115	.093	-.070
<i>E</i> -Agreeability	-.013	.071	-.015	-.101	.090	-.109	-.051	.055	-.056
<i>E</i> -Material Res.	.055	.042	.100	-.009	.070	-.015	.033	.036	.056
<i>E</i> -Introversion	-.026	.042	-.041	-.021	.056	-.033	-.031	.034	-.046
<i>E</i> -Conscientiousness	-.031	.052	-.041	-.028	.066	-.037	-.024	.040	-.031
<i>C</i> -Competitiveness	-.036	.037	-.072	.080	.057	.166	-.008	.031	-.016
<i>C</i> -Learning	.053	.077	.059	.000	.069	.000	-.010	.051	-.012
<i>E</i> -Openness to Exp.	.075	.058	.101	-.144	.076	-.190	.005	.046	.007
<i>C</i> -Altruism	-.048	.063	-.064	.076	.090	.087	-.001	.052	-.001
Total R^2		.276***			.398***			.316***	
Total R^2 change		.084***			.219***			.139***	

* $p < .05$, ** $p < .01$, *** $p < .001$; DV: Ultimate Destination Experiences; *E*=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait.

For clarity sake, a summary of only those results that were significant for ultimate destination experiences for the HAT, and SAT subgroups as well as all travelers is provided in Table 54.

Table 54

Significant Hierarchical Regression Results: ST-Ultimate Destination Experiences/ATP

Hard Adventure Travelers	Soft Adventure Travelers	All Travelers
<i>E</i> -Need for Arousal ($\beta = .207, p < .01$)	<i>E</i> -Physical Resources ($\beta = -.205, p < .05$) (negative relationship)	<i>E</i> -Need for Arousal ($\beta = .193, p < .01$)
<i>E</i> -Physical Resources ($\beta = -.143, p < .05$) (negative relationship)		<i>E</i> -Physical Resources ($\beta = -.162, p < .01$) (negative relationship)
<i>S</i> -Interest in Cultural Experiences ($\beta = .393, p < .001$)	<i>S</i> -Interest in cultural experiences ($\beta = .578, p < .001$)	<i>S</i> -Interest in Cultural Experiences ($\beta = .485, p < .001$)
	<i>S</i> -Fashion Leadership ($\beta = .285, p < .01$)	<i>S</i> -Fashion Leadership ($\beta = .171, p < .01$)
$R^2 = .276$	$R^2 = .398$	$R^2 = .316$

E=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait; Adjusted R^2 presented.

Tropical adventure experiences. In the second set of hierarchical regression equations to predict/model surface traits, the dependent variable was tropical adventure experiences (a measure of ATP). To identify differences in the adventure traveler subgroups, separate regression analyses were estimated for HATs and SATs. Results for all travelers, as well the HAT and SAT subgroups, are provided in Table 55. In all cases variance inflation factor (VIF) (≤ 1.95) and condition index (17.34) values were below the recommended levels of 10 and 30, respectively (Hair et al., 1998), indicating that multicollinearity was not an issue.

All travelers. The first model contained the elemental traits, the compound traits were added in the second model, and the situational traits were added to the third. Model

1 was significant ($R^2 = .16, p < .001$) although there was only one statistically significant predictor of tropical adventure experiences, the elemental trait need for arousal ($\beta = .335, p < .001$). When the compound traits of competitiveness, altruism and need for learning were added in Model 2, a significant increase in the explained variance was observed ($\Delta R^2 = .05, p < .001$). Significant predictors of tropical adventure experiences in Model 2 included the elemental trait need for arousal ($\beta = .324, p < .001$) and the compound trait need for learning ($\beta = .248, p < .001$). Finally, in Model 3 addition of the situational traits significantly increased the explanatory power of the model ($\Delta R^2 = .11, p < .001$). In this final model, significant predictors of tropical adventure experiences were the elemental trait need for arousal ($\beta = .269, p < .001$), the compound trait altruism (negative relationship) ($\beta = -.136, p < .05$), and the situational trait interest in cultural experiences ($\beta = .439, p < .001$).

Soft adventure travelers. When the SAT subgroup was considered, Models 1 and 3 were significant (Model 1 $R^2 = .21, p < .01$). The elemental trait need for arousal ($\beta = .172, p < .05$) was the single statistically significant predictor of tropical adventure experiences for the SAT group in Model 1. When the compound traits (competitiveness, altruism, and need for learning) were added in Model 2, there was not a significant increase in the variance. Addition of the situational traits in Model 3 significantly increased the variance accounted for ($\Delta R^2 = .11, p < .01$). In this final model, significant predictors of tropical adventure experiences for the SAT subgroup were the elemental trait need for arousal ($\beta = .255, p < .05$) and the situational trait interest in cultural experiences ($\beta = .446, p < .001$).

Hard adventure travelers. Among HATs, the first model predicting tropical adventure experiences was significant ($R^2 = .13, p < .001$). The elemental traits need for arousal ($\beta = .172, p < .05$), openness to experience ($\beta = .161, p < .05$), and agreeability ($\beta = .164, p < .05$) were statistically significant predictors of tropical adventure experiences for the HAT group. When the compound traits were added in Model 2, a significant increase in variance accounted for was obtained ($\Delta R^2 = .06, p < .01$). Significant predictors of tropical adventure experiences in Model 2 were the elemental traits need for arousal ($\beta = .183, p < .05$) and agreeability ($\beta = .191, p < .05$), and the compound trait need for learning ($\beta = .263, p < .01$). Finally, in Model 3 the variance explained improved again ($\Delta R^2 = .07, p < .001$) and was significantly explained by the following predictors: the elemental trait need for arousal ($\beta = .185, p < .05$), the compound trait altruism (negative relationship) ($\beta = -.171, p < .05$), and the situational trait interest in cultural experiences ($\beta = .362, p < .001$).

Table 55

Results Hierarchical Regression Analyses: ST-Tropical Adventure Experiences/ATP

	Hard Adventure Travelers (<i>n</i> = 205)			Soft Adventure Travelers (<i>n</i> = 119)			All Travelers (<i>N</i> = 324)		
Model 1: <i>E</i>	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
(Constant)	2.634	.586		1.599	1.043		1.811	.534	
<i>E</i> -Arousal	.098	.042	.172*	.298	.076	.423***	.210	.038	.335***
<i>E</i> -Openness to Exp.	.106	.051	.161*	-.022	.086	-.026	.081	.046	.107
<i>E</i> -Agreeability	.126	.059	.164*	.021	.102	.020	.073	.053	.080
<i>E</i> -Introversion	-.061	.040	-.108	.000	.068	.000	-.036	.036	-.056
<i>E</i> -Material Res.	-.024	.034	-.050	.094	.065	.138	.021	.032	.036
<i>E</i> -Conscientiousness	-.064	.048	-.096	-.007	.077	-.008	-.022	.042	-.028
<i>E</i> -Physical Res.	.002	.042	.003	-.049	.067	-.070	-.013	.038	-.020
<i>E</i> -Neuroticism	-.018	.041	-.031	.051	.075	.063	.002	.039	.003
Total R^2		.131***			.214**			.160***	
Model 2: <i>E</i> + <i>C</i>									
(Constant)	2.000	.611		1.411	1.033		1.324	.539	
<i>E</i> -Arousal	.104	.042	.183*	.273	.090	.388**	.203	.040	.324***
<i>C</i> -Learning	.210	.064	.263**	.189	.077	.264*	.194	.049	.248***
<i>E</i> -Agreeability	.146	.066	.191*	.009	.110	.009	.075	.058	.082
<i>E</i> -Conscientiousness	-.090	.048	-.136	-.036	.078	-.042	-.048	.042	-.062
<i>C</i> -Competitiveness	-.050	.034	-.112	.011	.069	.020	-.023	.032	-.046
<i>C</i> -Altruism	-.075	.059	-.111	-.042	.107	-.043	-.037	.054	-.045
<i>E</i> -Introversion	-.048	.039	-.085	.015	.067	.021	-.024	.036	-.036
<i>E</i> -Material Res.	-.002	.036	-.005	.065	.075	.095	.022	.035	.037
<i>E</i> -Physical Res.	.010	.042	.018	-.063	.067	-.088	-.016	.037	-.025
<i>E</i> -Neuroticism	-.012	.040	-.019	.074	.075	.092	.015	.038	.022
<i>E</i> -Openness to Exp.	.055	.054	.083	-.091	.090	-.107	.019	.048	.025
Total R^2		.186**			.261			.205***	
Total R^2 change		.056**			.047			.045***	
Model 3: <i>E</i> + <i>C</i> + <i>S</i>									
(Constant)	1.559	.603	□	.789	1.068		.835	.517	
<i>E</i> -Arousal	.105	.041	.185*	.180	.090	.255*	.169	.038	.269***
<i>S</i> -Interest Culture	.251	.062	.362***	.361	.092	.446***	.333	.050	.439***
<i>C</i> -Altruism	-.116	.057	-.171*	-.129	.104	-.131	-.111	.051	-.136*
<i>E</i> -Agreeability	.144	.065	.188*	.029	.103	.027	.080	.055	.087
<i>E</i> -Conscientiousness	-.076	.047	-.114	-.063	.076	-.073	-.055	.040	-.072
<i>E</i> -Physical Res.	-.017	.041	-.030	-.075	.065	-.106	-.041	.036	-.064
<i>C</i> -Learning	.079	.070	.099	.070	.080	.097	.049	.050	.063
<i>S</i> -Fashion Innov.	.022	.096	.019	.136	.178	.079	.054	.087	.037
<i>E</i> -Material Res.	-.002	.038	-.004	.028	.081	.042	.014	.036	.024
<i>C</i> -Competitiveness	-.027	.033	-.060	.070	.066	.129	.011	.031	.022
<i>E</i> -Neuroticism	.004	.040	.007	.027	.072	.034	.010	.036	.014
<i>E</i> -Openness to Exp.	.043	.053	.065	-.119	.087	-.140	-.011	.046	-.014
<i>S</i> -Uniqueness	-.096	.105	-.071	.030	.186	.016	-.019	.093	-.012
<i>E</i> -Introversion	-.033	.038	-.058	.056	.065	.076	.003	.034	.004
Total R^2		.253***			.369**			.311***	
Total R^2 change		.067***			.109**			.106***	

* $p < .05$, ** $p < .01$, *** $p < .001$; DV: Tropical Adventure Experiences/ATP; *E*=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait.

A summary of only significant results for tropical adventure experiences for the HAT, SAT and all travelers is provided in Table 56.

Table 56

Significant Hierarchical Regression Results: ST-Tropical Adventure Experiences/ATP

Hard Adventure Travelers	Soft Adventure Travelers	All Travelers
<i>E</i> -Need for Arousal ($\beta = .185, p < .05$)	<i>E</i> -Need for Arousal ($\beta = .255, p < .05$)	<i>E</i> -Need for Arousal ($\beta = .269, p < .001$)
<i>C</i> -Altruism ($\beta = -.171, p < .05$) (negative relationship)		<i>C</i> -Altruism ($\beta = -.136, p < .05$) (negative relationship)
<i>S</i> -Interest in Cultural experiences ($\beta = .362, p < .001$)	<i>S</i> -Interest in Cultural Experiences ($\beta = .446, p < .001$)	<i>S</i> -Interest in Cultural Experiences ($\beta = .439, p < .001$)
<i>E</i> -Agreeability ($\beta = .188, p < .05$)		
$R^2 = .253$	$R^2 = .369$	$R^2 = .311$

E=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait; Adjusted R^2 presented.

Traditional outdoor adventure experiences. In the third set of hierarchical regression analyses, the dependent variable was traditional outdoor adventure experiences (a measure of ATP). Results provided in Table 57 and a summary in Table 58. As before, multicollinearity was not as issue with this analysis.

All travelers. The first model contained the elemental and was significant ($R^2 = .22, p < .01$). In this model, the elemental trait need for arousal ($\beta = .438, p < .001$) was the only statistically significant predictor of traditional outdoor adventure experiences. When the compound traits were added in the second model, no significant increase in variance explained was observed. Finally, in Model 3, the situational traits significantly increased the variance accounted for ($\Delta R^2 = .03, p < .001$). In this complete hierarchical model, significant predictors of traditional outdoor adventure experiences were the

elemental trait need for arousal ($\beta = .356, p < .001$) and the situational trait interest in cultural experiences ($\beta = .203, p < .01$).

Soft adventure travelers. The first model contained the elemental traits, the compound traits were added in the second model, and the situational traits were added to the third. Model 1 was significant ($R^2 = .25, p < .001$). The elemental trait need for arousal ($\beta = .428, p < .001$) was the single statistically significant predictor of traditional outdoor adventure experiences for the soft adventure traveler subgroup. When the compound traits were added in Model 2, no significant increase in variance accounted for was obtained. Finally, in Model 3 the situational traits did not significantly increase the explanatory power of the regression model.

Hard adventure travelers. The final hierarchical regression tested the relationship of elemental, compound and situational traits to traditional outdoor adventure experiences among HATs.

Model 1 which contained only the elemental traits was significant ($R^2 = .19, p < .001$). The elemental traits need for arousal ($\beta = .369, p < .001$) and openness to experience ($\beta = .152, p < .05$) were statistically significant predictors of traditional outdoor adventure experiences for HATs. When the compound traits of, competitiveness, altruism, and need for learning were added in Model 2, no significant increase in variance explained was obtained. Finally, in Model 3, situational traits, increased the variance explained ($\Delta R^2 = .06, p < .01$). In this final model, significant predictors of traditional outdoor adventure experiences were the elemental traits need for arousal ($\beta = .331, p < .001$) and openness to experience ($\beta = .170, p < .05$), and two situational traits, interest in

cultural experiences ($\beta = .218, p < .05$) and fashion leadership ($\beta = -.200, p < .05$). For fashion leadership the relationship was negative.

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Table 57

Results Hierarchical Regression: ST-Traditional Outdoor Adventure Experiences/ATP

	Hard Adventure Travelers (<i>n</i> = 205)			Soft Adventure Travelers (<i>n</i> = 119)			All Travelers (<i>N</i> = 324)		
	<i>b</i>	<i>SE b</i>	β	<i>b</i>	<i>SE b</i>	β	<i>b</i>	<i>SE b</i>	<i>B</i>
Model 1: <i>E</i>									
(Constant)	2.354	.556		1.033	.816		1.812	.456	
<i>E</i> -Arousal	.206	.040	.369***	.242	.059	.428***	.243	.032	.438***
<i>E</i> -Openness to Exp.	.098	.048	.152*	-.065	.068	-.095	.046	.039	.068
<i>E</i> -Neuroticism	.008	.039	.013	.096	.059	.150	.038	.033	.060
<i>E</i> -Conscientiousness	-.006	.046	-.009	.085	.061	.124	.026	.036	.038
<i>E</i> -Introversion	-.030	.038	-.054	-.009	.053	-.016	-.018	.031	-.031
<i>E</i> -Physical Res.	-.024	.040	-.044	-.008	.053	-.014	-.019	.032	-.033
<i>E</i> -Agreeability	-.002	.056	-.002	.064	.080	.076	.011	.046	.014
<i>E</i> -Material Res.	-.032	.032	-.066	.070	.051	.128	-.002	.027	-.003
Total R^2		.188***			.250***			.217**	
Model 2: <i>E</i>+<i>C</i>									
(Constant)	2.441	.598		.828	.811		1.632	.470	
<i>E</i> -Arousal	.200	.041	.357***	.187	.070	.330**	.223	.035	.402***
<i>C</i> -Learning	-.029	.062	-.037	.126	.060	.221*	.054	.042	.079
<i>E</i> -Neuroticism	.005	.040	.009	.110	.059	.172	.040	.033	.064
<i>C</i> -Competitiveness	.027	.033	.062	.053	.054	.123	.030	.028	.067
<i>E</i> -Physical Res.	-.027	.041	-.049	-.023	.053	-.041	-.025	.032	-.044
<i>E</i> -Material Res.	-.042	.035	-.086	.012	.059	.022	-.021	.030	-.040
<i>E</i> -Openness to Exp.	.106	.053	.164*	-.117	.071	-.171	.021	.042	.032
<i>C</i> -Altruism	-.006	.057	-.008	.062	.084	.078	.023	.047	.032
<i>E</i> -Conscientiousness	-.006	.047	-.009	.060	.062	.088	.018	.037	.026
<i>E</i> -Introversion	-.032	.038	-.057	.009	.053	.016	-.013	.031	-.022
<i>E</i> -Agreeability	.010	.065	.013	.019	.086	.023	.002	.051	.002
Total R^2		.192			.291			.225	
Total R^2 change		.004			.041			.008	
Model 3: <i>E</i>+<i>C</i>+<i>S</i>									
(Constant)	2.278	.594		.224	.889		1.584	.474	
<i>E</i> -Arousal	.185	.041	.331***	.153	.075	.271*	.197	.035	.356***
<i>S</i> -Interest Culture	.149	.061	.218*	.097	.076	.150	.136	.046	.203**
<i>S</i> -Fashion Innov.	-.233	.095	-.200*	.113	.149	.082	-.151	.080	-.118
<i>C</i> -Competitiveness	.045	.033	.103	.076	.055	.176	.045	.028	.101
<i>E</i> -Neuroticism	.025	.039	.043	.099	.060	.155	.039	.033	.062
<i>E</i> -Physical Res.	-.026	.041	-.047	-.032	.054	-.056	-.021	.033	-.037
<i>E</i> -Openness to Exp.	.110	.052	.170*	-.148	.073	-.216*	.020	.042	.029
<i>E</i> -Introversion	-.031	.038	-.055	.021	.054	.036	-.009	.031	-.016
<i>S</i> -Uniqueness	-.036	.104	-.027	.162	.155	.104	.021	.085	.014
<i>C</i> -Learning	-.104	.069	-.133	.097	.066	.170	-.009	.046	-.014
<i>E</i> -Conscientiousness	-.005	.046	-.007	.064	.063	.093	.007	.036	.010
<i>E</i> -Material Res.	.001	.038	.002	-.032	.067	-.059	.006	.033	.011
<i>C</i> -Altruism	-.025	.057	-.038	.047	.086	.059	-.007	.047	-.009
<i>E</i> -Agreeability	.015	.064	.021	.033	.086	.040	.004	.050	.005
Total R^2		.248***			.320			.258**	
Total R^2 change		.056**			.029			.033**	

* $p < .05$, ** $p < .01$, *** $p < .001$; DV: Traditional Outdoor Adventure Experiences /ATP; *E*=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait.

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To simplify, a summary of only significant results for traditional outdoor adventure experiences for the HAT, SAT as well as all travelers are provided in Table 58.

Table 58

Significant Hierarchical Regression Results: ST-Traditional Outdoor Adventure Experiences/ATP

Hard Adventure Travelers	Soft Adventure Travelers	All Travelers
<i>E</i> -Need for Arousal ($\beta = .331, p < .001$)	<i>ns</i>	<i>E</i> -Need for Arousal ($\beta = .356, p < .001$)
<i>E</i> -Openness to Experience ($\beta = .170, p < .05$)	<i>ns</i>	
<i>S</i> -Interest in Cultural experiences ($\beta = .218, p < .05$)	<i>ns</i>	<i>S</i> -Interest in Cultural Experiences ($\beta = .203, p < .01$)
<i>S</i> -Fashion Leadership ($\beta = -.200, p < .05$) (negative relationship)	<i>ns</i>	
$R^2 = .248$	<i>ns</i>	$R^2 = .258$

E=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait; Adjusted R^2 presented.

Extreme adventure experiences. In fourth and final of hierarchical regression analyses, the dependent variable was extreme adventure experiences (a measure of ATP). In all other respects this analysis was identical to the previous two analyses. Results are described in Table 59 for all travelers, as well as both HATs and SATs. VIF and condition index values indicated that multicollinearity was not an issue in these analyses (Hair et al., 1998).

All travelers. The first model contained the elemental traits, the compound traits were added in the second model, and the situational traits were added to the third. Model 1 was significant ($R^2 = .28, p < .001$) and need for arousal ($\beta = .475, p < .001$) and material needs ($\beta = .143, p < .01$) were the only statistically significant predictors of extreme adventure experiences. When the compound traits were added in Model 2, there

was no significant increase in the variance. In Model 3, however, inclusion of the situational traits significantly increased the variance explained by the model ($\Delta R^2 = .02$, $p < .01$). In this final model, significant predictors of extreme adventure experiences were the elemental trait need for arousal ($\beta = .460$, $p < .001$) and the situational trait interest in cultural experiences ($\beta = .178$, $p < .01$).

Soft adventure travelers. The first model contained the elemental traits, the compound traits were added in the second model, and the situational traits were added to the third. Model 1 was significant ($R^2 = .25$, $p < .001$), however the second and third models failed to increase the regression equation's predictive ability. In the first (and only significant) model, the elemental trait need for arousal ($\beta = .445$, $p < .001$) was the single statistically significant predictors of extreme adventure experiences for SATs.

Hard adventure travelers. Similar to findings for SATs, only the first hierarchical model was significantly predictive of HATs propensity to engage in extreme adventure experiences. In Model 1 ($R^2 = .27$, $p < .001$) the elemental traits need for arousal ($\beta = .454$, $p < .001$) and material needs ($\beta = .186$, $p < .01$) were statistically significant predictors of extreme adventure experiences for the HAT subgroup.

Table 59

Results Hierarchical Regression Analyses: ST-Extreme Adventure Experiences/ATP

	Hard Adventure Travelers (<i>n</i> = 205)			Soft Adventure Travelers (<i>n</i> = 119)			All Travelers (<i>N</i> = 324)		
Model 1: <i>E</i>	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
(Constant)	-.273	.587		.822	.669		.048	.444	
<i>E</i> -Arousal	.281	.042	.454***	.205	.049	.445***	.266	.031	.475***
<i>E</i> -Material Res.	.100	.034	.186**	.050	.042	.111	.076	.026	.143**
<i>E</i> -Conscientiousness	-.046	.048	-.063	-.060	.050	-.107	-.051	.035	-.075
<i>E</i> -Openness to Exp.	.046	.050	.063	-.016	.056	-.029	.034	.038	.051
<i>E</i> -Neuroticism	.054	.041	.083	-.042	.048	-.079	.024	.032	.039
<i>E</i> -Agreeability	-.009	.059	-.011	.051	.067	.072	.008	.045	.010
<i>E</i> -Introversion	.018	.040	.030	-.036	.044	-.075	-.005	.030	-.008
<i>E</i> -Physical Res.	-.003	.042	-.005	-.013	.043	-.028	-.005	.031	-.008
Total R^2		.273***			.248***			.280***	
Model 2: <i>E</i> + <i>C</i>									
(Constant)	-.091	.630		.774	.662		.106	.459	
<i>E</i> -Arousal	.286	.043	.461***	.125	.058	.271	.260	.034	.465***
<i>E</i> -Material Res.	.104	.037	.193**	-.003	.048	-.006	.070	.030	.133*
<i>E</i> -Conscientiousness	-.041	.050	-.057	-.052	.050	-.093	-.050	.036	-.072
<i>E</i> -Openness to Exp.	.065	.055	.091	-.022	.058	-.040	.043	.041	.064
<i>C</i> -Competitiveness	-.002	.035	-.005	.112	.044	.318*	.021	.027	.047
<i>E</i> -Neuroticism	.053	.042	.081	-.048	.048	-.093	.021	.032	.034
<i>C</i> -Learning	-.048	.066	-.055	.030	.049	.064	-.020	.041	-.029
<i>E</i> -Agreeability	.002	.068	.002	.048	.072	.069	.022	.050	.027
<i>C</i> -Altruism	-.018	.060	-.024	-.007	.069	-.011	-.019	.046	-.025
<i>E</i> -Introversion	.015	.040	.024	-.028	.044	-.057	-.006	.030	-.010
<i>E</i> -Physical Res.	.000	.043	-.001	-.013	.043	-.027	-.005	.032	-.008
Total R^2		.276			.295			.283	
Total R^2 change		.003			.047			.003	
Model 3: <i>E</i> + <i>C</i> + <i>S</i>									
(Constant)	-.397	.640		.247	.715		-.145	.465	
<i>E</i> -Arousal	.290	.044	.467***	.106	.061	.230**	.257	.034	.460***
<i>S</i> -Interest Culture	.149	.065	.198*	.114	.061	.216	.120	.045	.178**
<i>S</i> -Fashion Innov.	.075	.101	.058	.216	.120	.190	.142	.078	.110
<i>E</i> -Material Res.	.092	.041	.171*	-.048	.054	-.107	.049	.032	.092
<i>C</i> -Learning	-.128	.074	-.147	.002	.053	.005	-.068	.045	-.097
<i>E</i> -Conscientiousness	-.030	.050	-.042	-.045	.051	-.081	-.047	.036	-.068
<i>C</i> -Competitiveness	.012	.036	.024	.134	.044	.380	.032	.028	.070
<i>C</i> -Altruism	-.043	.061	-.058	-.029	.070	-.046	-.045	.046	-.062
<i>S</i> -Uniqueness	-.039	.111	-.026	-.015	.124	-.011	-.064	.083	-.044
<i>E</i> -Physical Res.	-.023	.044	-.037	-.032	.044	-.069	-.024	.032	-.041
<i>E</i> -Openness to Exp.	.054	.056	.075	-.044	.059	-.080	.028	.041	.042
<i>E</i> -Neuroticism	.059	.042	.090	-.052	.048	-.100	.020	.032	.031
<i>E</i> -Agreeability	-.003	.069	-.004	.056	.071	.081	.025	.050	.031
<i>E</i> -Introversion	.027	.040	.043	-.003	.044	-.007	.009	.031	.015
Total R^2		.297			.343			.306**	
Total R^2 change		.002			.047			.023**	

* $p < .05$, ** $p < .01$, *** $p < .001$; DV: Extreme Adventure Experiences/ATP; *E*=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait.

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A summary of only significant results for the HAT, SAT as well as all travelers is provided in Table 60.

Table 60

Significant Hierarchical Regression Results: ST-Extreme Adventure Activities/ATP

Hard Adventure Travelers	Soft Adventure Travelers	All Travelers
<i>ns</i>	<i>ns</i>	<i>E</i> -Need for Arousal ($\beta = .460, p < .001$)
<i>ns</i>	<i>ns</i>	<i>S</i> -Interest in Cultural Experiences ($\beta = .178, p < .01$)
<i>ns</i>	<i>ns</i>	$R^2 = .306$

E=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait; Adjusted R^2 presented.

Summary of Hypotheses

An overview of the results of the hypotheses testing is provided in Table 61.

Table 61

Overview of Hypotheses

Hypothesis	Ultimate Destination Experiences	Tropical Adventure Experiences	Traditional Outdoor Recreation	Extreme Adventure Experiences
H^1 <i>E</i> : Need for arousal	ALL/SAT /HAT	ALL/SAT /HAT	ALL/HAT	ALL
H^2 <i>E</i> : Agreeability	<i>ns</i>	HAT	<i>ns</i>	<i>ns</i>
H^3 <i>C</i> : Competitiveness	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
H^4 <i>C</i> : Altruism	<i>ns</i>	ALL ¹ /HAT ¹	<i>ns</i>	<i>ns</i>
H^5 <i>C</i> : Need for learning	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
H^6 <i>S</i> : Interest in cultural experiences	ALL/SAT /HAT	ALL/SAT /HAT	ALL/HAT	ALL
H^7 <i>S</i> : Need for uniqueness	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>
H^8 <i>S</i> : Fashion leadership	ALL/SAT	<i>ns</i>	HAT ¹	<i>ns</i>

E=Elemental trait; *C*=Compound trait; *S*=Situational trait; *ST*=Surface trait; ¹Negative relationship.

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Hypothesis one. The first hypothesis proposed that the elemental trait *need for arousal* will positively influence ATP. Four hierarchical regressions were estimated to test the hypothesis with the sets of indicators of travel propensity or the surface traits.

Need for arousal significantly influenced all of the dependent variables (ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences) for all travelers. For the HAT subgroup, need for arousal significantly influenced three out of the four dependent variables. In the case of the dependent variable extreme adventure experiences, need for arousal was a significant predictor only for all travelers, but not the HAT and SAT subgroups. For SATs, need for arousal was a significant predictor for two of the four dependent variables, ultimate destination experiences and tropical adventure experiences.

Data were consistent with the hypothesis, in that a respondent's need for arousal was a significant predictor for the surface trait ATP measured by the four travel experience types. Therefore it is concluded need for arousal has a positive influence on ATP.

Hypothesis two. The second hypothesis proposed that the elemental trait *agreeability* will positively influence ATP. Agreeability was not a significant predictor of ultimate destination experiences, extreme adventure experiences or traditional outdoor adventure experiences. Agreeability was only a predictor in the case of tropical adventure experiences and it was only predictive for the HAT subgroup. Therefore the data only partially supported the hypothesis.

Hypothesis three. The third hypothesis speculated that the compound trait *competitiveness* would positively influence ATP. Findings from hierarchical regressions

estimated that competitiveness was not a significant predictor for any of the four types of adventure travel experiences. Data were not consistent with the hypothesis; competitiveness was not a significant predictor for any of the four travel experience types (i.e., ATP). Thus, hypothesis three was not supported.

Hypothesis four. The fourth hypothesis stated that the compound trait *altruism* would demonstrate a positive influence on ATP. Altruism was not a significant predictor of ultimate destination experiences, extreme adventure experiences or traditional outdoor adventure experiences. However, altruism was a significant predictor of tropical adventure experiences for all travelers and the HAT subgroup, in both cases a negative relationship. As such, data were partially consistent with the hypothesis and therefore it was concluded hypothesis four partially supported ATP.

Hypothesis five. The fifth hypothesis was that respondents' *need for learning*, a compound trait, would positively influence their ATP. No significant relationship was observed between need for learning in the hierarchical regressions with ultimate destination experiences, tropical adventure experiences, extreme adventure experiences, and traditional outdoor adventure experiences as the dependent variables. Therefore, hypothesis five was not supported.

Hypothesis six. According to Hypothesis 6, the situational trait *interest in cultural experiences* was expected to positively influence ATP. When ultimate destination experiences and tropical adventure experiences were the measure of travel propensity, interest in cultural experiences was a significant predictor for all travelers and the HAT and SAT groups. Interest in cultural experiences was a significant predictor for all travelers and HATs, but not SATs, when the measure of ATP was traditional outdoor

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experiences. For extreme adventure experiences, interest in cultural experiences was a significant predictor for all travelers but not for the HAT or HAT subgroups. Data supported the hypothesis that interest in cultural experiences would positively influence ATP. Hypothesis six was supported.

Hypothesis seven. Hypothesis seven was not supported. This hypothesis posited that travelers' *need for uniqueness*, a situational trait, would positively influence ATP. As no significant associations were observed in the regressions this hypothesis was not supported.

Hypothesis eight. Hypothesis 8 speculated that the situational trait *fashion leadership* would positively influence ATP. Fashion leadership was not a significant predictor of tropical adventure or extreme adventure experiences for any segment of travelers. Fashion leadership was a significant predictor of traditional outdoor adventure experiences although only for the HAT group, and the relationship was negative. In contrast, fashion leadership was a significant predictor of ultimate destination experiences for all travelers and the SAT group, again a negative relationship. Thus, it may be concluded that data partially supported Hypothesis 8.

The results revealed that two elemental traits were predictive of ATP, which were not hypothesized. In addition to testing the eight hypotheses, using the final model, Model 3 these significant relationships were also found: openness to experience ($\beta = .170, p < .05$) was a significant predictor of traditional outdoor recreation experiences/ATP for the HAT group and physical resources was shown to be a significant predictor (negative relationship) of ultimate destination experiences/ATP for all travelers ($\beta = -.162, p < .01$), HATs ($\beta = -.143, p < .05$), and SATs ($\beta = -.205, p < .05$).

Summary

Chapter IV provided an overview of data analysis including a description of the sample and results of hypotheses testing using hierarchical regression. The following chapter, Chapter V, presents a summary of results, conclusions and discussion of key findings, implications and limitations of study findings, as well as recommendations for future traveler personality research.

Chapter V

CONCLUSION

The focus of this study was to explore the psychological forces that motivate and influence travel-related behavior (Mayo & Jarvis, 1981). Mowen's (2000) Meta-Theoretic Model of Motivation and Personality (3M Model) was the organizational structure employed in an effort to understanding how personality traits impact behavior. Integrating control theory, evolutionary psychology principles, and elements of hierarchical trait theories the 3M Model provides a holistic view of how personality interacts with situations to influence feelings, thoughts, and behaviors. The study extended Mowen's (2000) model which has been utilized to examine healthy diet lifestyles, compulsive buying, bargaining proneness, sports participation, modest living, and now adventure travel.

Data were collected using a mail questionnaire across four geographical regions following the U.S. Census model. A random sample of subscribers from *National Geographic Adventure* magazine were drawn using sampling frames representing the four regions. Questionnaires were mailed in October 2007 and used data collection strategies recommended by Dillman (2000) in October 2007. From 1,000 surveys, 339 were returned and completed for an overall response rate of 34%. After the mail data collection was completed, a non-response survey was sent out in January 2008 to assess potential bias in the dataset. Of the 100 non-response surveys, 26 were returned and complete for an overall response rate of 27%. The results obtained from the non-respondents were found to be indistinctive from the mail study results, thus there were assumed to be no major concerns regarding non-response errors in the study.

A multi-method approach was used to develop the survey instrument. The survey was developed based on a literature review of existing research related to adventure recreation and tourism, consumer behavior, and personality and modified based upon input obtained from a panel interview with adventure industry leaders. The result was a questionnaire combining previous studies and theories in the consumer behavior and recreation and tourism literature along with key industry perspectives.

The overall statistical analysis included: (1) descriptive statistics to analyze demographic profile of the sample (gender age, marital status, household composition, children living in household, ethnicity, education, income and employment status); (2) travel experience profile (passport ownership, number of domestic/international trips; number of destinations visited; destinations experienced (grouped according to mass, soft adventure, and hard adventure destinations); number of activities experienced; travel activity experience (grouped according to mass, soft adventure, and hard adventure activities); (3) travel intentions profile (number of domestic/international vacations respondents intend to take; number of continents/regions respondents plan to visit); destination intentions (grouped according to mass, soft adventure, and hard adventure destinations); travel activity intentions (grouped according to mass, soft adventure, and hard adventure activities); number of activities plan to experience (grouped according to mass, soft adventure, and hard adventure activities); destination experience and intentions combined (grouped according to mass, soft adventure, and hard adventure destinations); activity experience and intentions combined (grouped according to mass, soft adventure, and hard adventure activities); (4) pre- and post-travel behavior profile (trip

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planning; sources used to book or reserve trips; helpfulness of sources; pre-trip activities, communication types used, technologies used before, during and after vacation travel, helpfulness of technology, and lifestyle changes following a vacation trip); (5) descriptive statistics of the four personality trait levels (elemental, compound, situational, and surface); (6) factor analysis to determine underlying factors of the surface trait ATP; and (7) hierarchical regressions to test the hypotheses. Guttman scaling procedure was employed to categorize respondents into soft/hard categories as a context for understanding the demographic and travel behavior characteristics of the study sample.

Summary of Results

The study sought to extend past research on consumer behavior and personality in the context of adventure tourism. Mowen's (2000) 3M Model was theoretical framework used to examine the personality traits of adventure travelers, and the key results of the study are discussed in the following section.

Broadly, this study was designed to examine the application of the 3M Model as a tool to predict adventure travel propensity (ATP). The study identified four measures of ATP; (1) ultimate destination experiences; (2) tropical adventure experiences; (3) extreme adventure experiences; and (4) traditional outdoor adventure experiences.

The first measure of ATP, ultimate destination experiences, are those travel experiences that involve visiting unique/exceptional destinations, for example, visiting all the seven continents; visiting the Seven Wonders of the World; visiting the pyramids in Egypt; going on a safari in Africa; walking down the ancient paths of China; visiting a market in India; staying at a hot spring spa in Japan.

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Next, the ATP measure tropical adventure experiences are those travel experiences that focus on tropical settings and include activities or experiences such as: hiking in a rainforest; snorkeling on the Great Barrier Reef; relaxing on the white beaches of Bora-Bora; and exploring the ancient civilization of Mayans.

The third measure of ATP, traditional outdoor adventure experiences, are those travel experiences that involved activities or experiences in North America such as: rafting in the Grand Canyon; camping in Glacier National Park; getting off the beaten track; and making snow angels in Alaska.

The last measure of ATP, extreme adventure experiences consist of travel experiences that involve difficult/challenging activities and include experiences such as: running with the bulls in Spain; rock climbing on every continent; and cage-diving with Great White Sharks.

The soft/hard adventure typology has been shown to be useful to both academics and practitioners alike. Thus study respondents were grouped into soft/hard adventure travel subgroups using a novel application of the approach known as Guttman scaling as outlined in chapter III. Results indicated significant differences exist between the hard adventure traveler (HAT) and soft adventure traveler (SAT) subgroups.

In all measures of ATP, the best regression models were often the “full model.” For the ultimate destination experience measure of ATP, a combination of elemental, compound, and situational traits in the final hierarchical model accounted for a range of 28% to 40% of the variance. The trait indicators for all travelers were two elemental traits, need for arousal and physical/body needs (negative relationship); and two situational traits, interest in cultural experiences and fashion leadership. These accounted

for 32% of the variance in ultimate destination experiences. In the case of HATs the same traits were predictive of ultimate destination experiences (need for arousal, physical/body needs-negative relationship, and interest in cultural experiences), with the exception of fashion leadership. These accounted for 28% of the variance for HATs. For SATs, the elemental trait need for physical/body needs (negative relationship), and two situational traits, interest in cultural experiences and fashion leadership (negative relationship) accounted for 40% of the variance in the ATP measure ultimate destination experiences.

The final hierarchical model for the measure of ATP, tropical adventure experiences, accounted for a range of 25% to 37% of the variance explained. For all travelers 31% of the variance was explained, for HATs 25%, and for SATs 37% of the variance was explained for tropical adventure experiences. The elemental trait need for arousal, the compound trait altruism (negative relationship), and the situational trait interest in cultural experiences accounted for 31% of the variance in tropical adventure experiences for all travelers. For HATs, the same traits were significant along with agreeability and accounted for 25% of the variance in the measure of ATP, tropical adventure experience. In the case of SATs, tropical adventure experiences accounted for 37% of the variance explained with the elemental trait need for arousal and the situational trait interest in cultural being the trait indicators.

Finally, for the traditional outdoor adventure experience measure of ATP, a combination of elemental, compound, and situational traits in the final hierarchical model accounted for a range of 25% to 26% of the variance. In the case of all travelers the elemental trait, need for arousal, and the situational trait, interest in cultural experience, accounted for 26% of the variance. For the HAT group, need for arousal and cultural

experience were significant as well as fashion leadership (negative relationship), which accounted for 25% of the variance. Results for the SAT group were not significant for the ATP measure, traditional outdoor adventure experiences.

Results for the ATP measure extreme activity experiences were least predictive. Results indicated no variance explained for HAT and SAT subgroups; however 31% of the variance was explained for all travelers. Consistent with other measures of ATP, the elemental trait need for arousal and situational trait interest in cultural experiences were the trait indicators of extreme adventure experiences.

Discussion

In an overview of the results the pattern of relationships between elemental level traits, compound level traits, situational traits to surface traits need for arousal and interest in cultural experiences were most consistent predictors of ATP.

Need for arousal predicted ATP. An elemental trait, need for arousal was the single trait that was predictive across all four indicators of ATP (i.e., ultimate destination experiences, tropical adventure experiences, traditional outdoor adventure experiences, and extreme adventure experiences). Formally, the need for arousal is the trait that measures individual differences in the propensity to seek and raise the level of stimulation (Mowen, 2000). Berlyne (1960) suggested that every individual has a preferred or “optimum stimulation level” and is motivated to increase or decrease novelty, a construct closely related to arousal/sensation seeking (Lee & Crompton, 1992), and complexity if the environmental stimulation is below or above the optimum. Research on the need for arousal can be traced to the work of Mehrabian and Russell

(1974) and Zuckerman (1979). The effects of the need for arousal can be explained by optimum stimulation-level theory. A person's preferred amount of physiological activation or arousal is their optimum stimulation level.

Adventure travelers have long been associated with a high desire for stimulation and excitement. Many adventurers report that adventure brings with it heightened awareness and a sense of immediacy and aliveness (Swarebrooke et al., 2003). According to Muller and Cleaver (2000) stimulation is one of the main distinguishing features of adventure tourism and is characterized by its ability to provide the tourist with relatively high levels of sensory stimulation. Wahlers and Etzel (1985) investigated the relationship between vacation activity preferences and individual stimulation needs. Results suggested that persons seeking stimulation had a preference for vacations characterized by as innovation and invigoration; whereas, those avoiding stimulation preferred vacations described as structured and/or enriching. At the extremes, a vacation may consist of unusual and exotic activities, or relatively repetitive commonplace experiences. Results of the current study are consistent with previous research.

Similar to the need for arousal trait, the interest in cultural experiences trait was a common trait across indicators of ATP. Consistent with Sung's (1997) research, the primary benefits of adventure travel are improved interpretation of the environment and culture. Results are also consistent with more recent research by Scott and Mowen (2007) that indicated a strong relationship between interest in the arts and adventure travel.

Results indicated that the ultimate destination experience indicator of ATP was best explained with the 3M Model and the extreme adventure experiences indicator was not well explained, tropical adventure and outdoor recreation experiences were in the

middle. These types of experiences provide the settings commonly associated with adventure and offer opportunities and appeal to both HATs and SATs. The question of how adventure manifests itself in a tourism context depends on the individual. In contrast, extreme adventure experiences focus on difficult/challenging activities (e.g., cliff diving in Jamaica, cage diving with great white sharks, running with the bulls in Spain, rock climbing on every continent). The specificity of these experiences may be the reason this indicator did little to explain ATP.

With regard to the 3M Model that guided the study, results were mixed. On the one hand, the model was a useful organizing framework. Specifically the 3M Model offers the advantage of a hierarchical approach to personality is that it identifies the basic elemental and compound traits that account for situational traits and surface level traits. By going underneath the surface and situational context, the hierarchical model provides a means for identifying the more basic compound and elemental traits that act as references for behavior. Irrespective of the indicator of ATP, need for arousal and interest in cultural experiences were the most consistent predictors of ATP.

Contradicting the results of a study by Scott and Mowen (2007), the trait agreeability was proposed to have a positive influence on ATP; however it was found only to be a significant predictor for the HAT group for any of the four indicators of ATP. Agreeability is defined as “the need to express kindness and sympathy to others” (Mowen, 2000; p. 29). Research conducted by Scott and Mowen (2007) indicated that agreeability was significantly related to adventure travel. Adventure travel provides the opportunity to travel with friends and or family, therefore those who are more likely to engage in adventure travel may also be more agreeable. Those who are agreeable might

also enjoy meeting new people in a distant country. They may also find it easier to get along and form relationships with those from different cultures. However, results were inconsistent with these findings.

Inconsistent with other studies (McClellan, 1985; Tran & Ralston, 2006) competitiveness was not found to be predictive of ATP. Findings from hierarchical regressions estimated that competitiveness was not a significant predictor for any of the four measures of ATP. The finding that the measure of competitiveness was not related to ATP was inconsistent with previous research. Tran and Ralston (2006) observed individuals with a high need for achievement preferred tourism experiences that involved natural settings and were challenging. McClellan's (1985) theory linking achievement motivation and overcoming challenge suggested individuals who possess a high need for achievement will be more competitive and most likely will have a propensity for adventure travel. It may be that a more specific measure of competitiveness, specific to travel, rather than the global measure used would be related to adventure travel. Alternatively, it is possible the measure of adventure travel used in the current study did not cause respondents to think of high-risk activities.

Altruism was predictive only of the measure of ATP, tropical adventure experiences. Results are contrary to research supporting altruism as a motivation to volunteer and growth of the concept of 'volunteer tourism' (Wearing, 2003). According to Brown and Lehto (2005) volunteer vacations are driven by sense of adventure, desire for exploration and novelty. The findings may be a result of the altruism measures used. A measure specific to volunteering on vacation as a surface trait may provide different results.

Inconsistent with other studies, need for learning did not predict ATP. Mowen (2000) defined the need for learning as “an enduring disposition to seek information resource” (p. 72). He developed a measure of the need for learning and identified it as a compound trait. The construct was designed to measure the cross situational predisposition to obtain information resources. Lack of support for this trait as a predictor was most surprising. A great deal of literature exists that suggested exploration and discovery are core components of the adventure process (Swarbrooke et al., 2003). Addison (1999) argued that education and the hunger to learn from new situations are key motivations for both travel and adventure. An expansion and redefinition of adventure tourism based on an insight model was proposed by Walle (1997). He argued that it is the quest for insight and knowledge (rather than risk) that underlies adventure tourism. Research conducted by Sung et al. (1997) also supported educational opportunities as motives for engaging in adventure travel. Anecdotally, companies offering adventure travel products and services have consistently emphasized discovery and exploration on their websites and in collateral materials (e.g., brochures, press releases). The current results were inconsistent with previous research that has suggested a primary motive for engaging in adventure travel may be to learn more about other people, places, and cultures. Perhaps the lack of support is due to the measure of learning employed. A measure tapping into the discovery and exploration facets of learning may be more effective in identifying the link between learning and adventure travel experiences.

Historically, risk and challenge have been associated with adventure (Walle, 1997; Weber, 2001). This association has resulted in most research of adventure tourism focusing primarily on risk and challenge. Research by Sung (1997) and Scott and Mowen

(2007) suggested a perspective of adventure which addresses the cultural component of adventure would be beneficial to adventure industry businesses and organizations.

Findings of the current study supported incorporating interest in cultural experiences as a predictor of ATP and may allow for the expansion of the adventure travel market segment to consumers not previously viewed as adventure travelers.

Contradicting the results of previous research linking need for uniqueness and consumer behavior, the trait need for uniqueness was not a predictor of ATP. Snyder and Fromkin (1977) developed the need for uniqueness (NFU) scale and examined differences between high and low NFU individuals. They proposed that striving for uniqueness was related to a sense of positive self-esteem. Accordingly, people appear to derive intrinsic satisfaction from the perception that they are unique, special, and separable from “the masses,” which is referred to as “need for uniqueness.” A number of scales have been developed to measure need for uniqueness (Lynn & Harris, 1997; Snyder & Fromkin, 1977; Tian et al., 2001). The current research employed the consumer need for uniqueness (CNFU) scale offered by Tian et al. (2001). Consumers’ need for uniqueness is defined as an individual’s pursuit of differentness relative to others that is achieved through the acquisition, utilization, and disposition of consumer’s goods for the purpose of developing and enhancing one’s personal and social identity (Tian et al., 2001). According to Tian et al. (2001) one way of differentiating oneself is through product purchases, and products and their uses that become classified as being outside the norm may serve as recognizable symbols of uniqueness (Tian et al., 2001). Status has been related to the purchase of adventure tourism products. Thus, a product that has distinct characteristics, such as adventure travel when compared with mass travel, may

allow a person to stand out among others and provide the person with a sense of uniqueness.

Findings were inconsistent with previous research that suggested adventure travelers have a higher need for uniqueness. An explanation may be the measurement used to determine uniqueness. Snyder (1992) and Sirgy (1993) called for the development of a new scale designed specifically to measure the desire for unique consumer products. Lynn and Harris (1997) developed the desire for unique consumer products (DUCP) scale, which may be a more sensitive predictor of consumer behavior. Alternatively, developing a uniqueness scale specific to travel products may yield different results.

Similar to research conducted by Scott and Mowen (2007), fashion leadership was found to influence ATP. However, the current study indicated a negative relationship. Scott and Mowen (2007) proposed that some individuals may travel to purchase clothing as well as to see how people dress in other cultures. Findings contradict research linking adventure tourism and outdoor fashion industry evidenced by the rapid growth of adventure tourism and adventure outfitters. Sung et al. (1997) noted the rapid growth of adventure tour operators matched the growth of equipment and gear manufacturers, as well as commercial outfitters and retailers.

Additionally, the growth of outdoor retailers like North Face, Patagonia, and REI further suggests the link between fashion and adventure. As suggested by Buckley (2007), fashion leadership may be a motive for adventure travel because of the requirements of suitable attire for adventure experiences. Many adventure activities participants require both technical and non-technical clothing to participate suggesting

fashion plays both a technical and non-technical role. However, the current research did not coincide with these previous studies.

Generally, results of the current study indicated respondents had a high level of travel experience. Previous research supports that previous travel experience is likely to affect an individual's perception of what constitutes adventure travel. Pearce and Caltabiano (1983) proposed the concept of a travel career ladder. While it has been further developed (Pearce & Moscardo 1985; Pearce, 1988), adopted (Kim, 1997), and critiqued (Ryan, 1998), the essential premise of the concept based on Maslow's need hierarchy is as follows: Tourists are initially more concerned with fulfilling physiological and safety needs, but with greater experience they increasingly seek to satisfy higher level needs such as relationship, self-esteem, and self-actualization. Adventure tourism has so far been mostly related to an individual's pursuit of peak experiences, attempting to address a need for self-actualization. According to the travel career ladder, this would generally refer to more experienced tourists.

In relation to past travel destination experience, results were consistent with previous research that examined past international travel experience. Past travel experience has been found to influence future behavioral intentions (Goodrich 1978; Mazursky 1989; Perdue 1985). Mazursky (1989) stated that future travel is influenced not only by the extent but also the nature of past travel experience and even suggested that personal experience may exert more influence on travel decisions than information acquired from external sources. Sommez and Graefe (1998) examined the influences of past international travel experience and likelihood of travel to various geographic regions on their next international vacation trip or avoidance of those regions due to perceived

risk. Results revealed that past travel experience to specific regions both increases the intention to travel there again and decreases the intention to avoid areas, particularly risky areas. Results of the current study indicated that both HATs and SATs were well-traveled.

To summarize, the results of this study indicated that Mowen's (2000) Meta-Theoretic Model of Motivation and Personality (3M Model) provided a useful framework for examining tourist behavior. As Mannell (1984) stated, most studies examining personality as a predictor of leisure behavior have employed general personality inventories to measure individual differences, failing to provide a theoretical approach to identify leisure-specific personality differences to aid in understanding leisure behavior. The theoretical basis of the 3M Model addresses this shortcoming. Additionally, the findings of the current study are robust, addressing the criticism Nias (1985) made of studies examining the relationship between leisure behavior and personality. The 3M Model presented a consistent measure of personality, provided definitional clarity in the variable operationalizations, and was based on theory for the inclusion of specific behaviors addressing concerns regarding the study of personality and leisure behavior proposed by Iso-Ahola (1980).

Finally, the findings were consistent with the proposal that traits can be arranged into a four-level hierarchy. These results supported the use of a hierarchical approach for understanding the relationships among personality traits.

Implications

Tourism can be defined in behavioral terms as persons who travel away from their normal residential region for a temporary period of at least one night. Their behavior

involves a search for leisure experiences from interactions with features or characteristics of places they choose to visit (Leiper, 1979). Based on Leiper's statement, it can be confirmed that understanding tourist consumer behavior is not only of interest to academics, but also provides practitioners with the knowledge needed for effective tourism planning and marketing. Results of this research will assist the adventure tourism industry in optimizing the effectiveness and efficiency of their marketing activities by providing an understanding of how adventure travelers make their decisions to purchase or use tourism products.

Typically marketing is seen as a department that comes into play after the product has been made and the remaining job is to sell it. However, marketing should be seen as setting the strategic direction for the firm. Over thirty years ago, marketing guru Peter Drucker stated: "A company has only two basic functions: innovation and marketing."

According to Kotler (1997) the marketing concept holds that the key to achieving organizational goals consists of being more effective than competitors in integrating marketing activities toward determining and satisfying the needs and wants of target markets. The marketing concept rests on four pillars: target market, customer needs, integrated marketing, and profitability.

Effective target marketing requires breaking a market into segments and then concentrating marketing efforts on one or a few key segments. Target marketing can be the key to a small business's success. It makes the promotion, pricing and distribution of products and/or services easier and more cost-effective by providing a focus for all marketing activities.

Based on the results of this study, adventure travel industry marketers and managers should take the following steps: (1) position and differentiate products based upon dominant personality or psychographic characteristics of the target market; (2) scan the environment to identify dominant cultural values of the target market; (3) use market research to identify the personality, self-concept and psychographic characteristics that distinguish the target market; (4) develop promotions to be consistent with dominant personality characteristics of the target market - create products that fulfill the motivational needs of the target (e.g., high risk products for high need for arousal group); and (5) use personality and psychographics to identify segments of consumers to target, such as culturally focused adventures for interest in cultural experiences group.

The results of this study allow adventure travel industry marketers and managers to optimize the effectiveness and efficiency of marketing activities, by providing an understanding of how consumers make their decisions to purchase or use tourism products. Further, an understanding of adventure travel behavior patterns, gives marketers and managers the information they need to intervene in the process and obtain desired results. More importantly, they can persuade consumers to choose certain products, which have been designed more effectively to meet particular needs and wants.

Results of this study have important implications for both future research studies and management of the adventure travel industry. By providing a comprehensive analysis of the adventure travel market by using personality as a more effective means of segmenting the market, this study is expected to make a unique contribution to future adventure travel marketing research. The hypothesized relationship between personality and adventure travel behavior proposed and examined in this study may need additional thought and

development, and could be improved with greater reflection into the study findings. For instance, traveler's likelihood of participating in different adventure travel experiences was predicted. Personality was recognized as a way to tailor marketing opportunities about the adventure travel market.

Although not always supported by empirical research, studies of nature based tourism (e.g., adventure, nature tourism, ecotourism) have suggested that adventure that these travelers are likely to be males, middle aged, well educated, and affluent (Loverseed, 1997; TIA, 1998; Wight, 1996). This general profile appears to describe adventure travelers in this study. A 2006 study of affluent leisure travelers in the U.S. conducted by TIA indicated that affluent leisure travelers accounted for 34.8 million leisure household trips with vacation spending averaging more than \$2,100 per trip. Defining affluent as households with total incomes of \$125,000 or more, almost a quarter (24%) of respondents in the current study had household incomes of over \$150,000 making them part of the affluent segment. Average household incomes of affluent leisure travelers are \$163,100. Affluent travelers represent a lucrative segment for adventure travel businesses to target. Nearly a third of affluent travelers age 55+ spend \$1,000 or more per leisure trip compared to 19 percent among affluent leisure travelers age 18-34.

Compared with the more than decade old Adventure Travel report (1998) the sample of this study appears to be younger and have fewer children living in the household. Overall, adventure travelers are distinctive in some demographic and socioeconomic characteristics, and therefore, have specific needs and demands for travel and tourism products and services. The profile of adventure travelers' identified in this

study can provide valuable information for adventure industry managers and marketers in addressing the most salient managerial issue: who are adventure travelers?

In addition to traditional demographic and socioeconomic characteristics, examinations of past travel experience and intentions as well as pre and post trip behavior can provide new dimensions in understanding the specific behavior of adventure travelers; what they do on an adventure travel trip and how? The inclusion of adventure travel behavior provided additional insights as to how adventure travel is perceived by travel, suggesting to managers and marketers how the adventure travel products should be developed in terms of their ingredients in order to improve customer appeal. The relative importance of trip related factors to demographic or socioeconomic characteristics across traveler type also suggests that the inclusion of more behavioral variables such as travel motivation might yield significant results in determining traveler's likelihood of participating in adventure trip types.

Classification of adventure traveler subgroups provides valuable insight for managers and marketers as to how they pinpoint their target segments for effective use of marketing resources. For marketers and adventure travel industry providers, it is recommended that they should pay extensive attention to travelers who have a high need for arousal and an interest in cultural experiences. This insight allows marketers and managers to target at a particular time with a particular tourism product. Clearly, this information is crucial to make marketing activity more successful.

As discussed earlier in the results of the hierarchical regression, all four adventure travel experience types appeared to be related to both the HAT and SAT subgroups. The HATs are significantly distinctive from SATs as to the travel experiences they dream of

or adventure travel propensity. Likewise a strong contrast is shown between the SAT and HAT types providing empirical evidence for marketers as to how they enhance different levels of involvement specific to each target segment.

Adventure travel marketers should also recognize that the nature of the risk element has to be carefully attached to the notion of “perceived” risk rather than to just the provision of “dangerous, risky” setting as in traditional leisure or recreation studies (Sung et al., 1997). This has been consistent in the results of this study suggesting that the amount as well as the level of risk involved in adventure travel products and services should be clearly controlled to treat different adventure trips or traveler groups. For the soft nature type, for example the amount of risk should be controlled at a minimum level, whereas a certain degree of risk is essential for the ‘hard challenge’ trips.

As previously mentioned, travel and tourism have largely adopted past leisure and recreation studies to construct initial conceptual frameworks, and this has been the case in adventure travel (Sung et al., 1997). It appears that there are certain overlaps as well as differences in three fields, such that no single measurement has ever been able to analyze leisure, recreation, and tourism in one context. What needs to be understood is that adventure travel is highly activity-oriented segment emphasizing sophisticated levels of experience and expertise rather than traditional risk and motivation theories.

According to Swarbrooke and Horner (1999), consumer behavior is the foundation for all marketing activity carried out to develop, promote and sell tourism products. An understanding of behavior patterns allows marketers and managers to manipulate the process in order to obtain the results that we want giving them the ability to know how to target at a particular time with a particular tourism product. More

importantly, consumers can be persuaded to choose certain products, which have been designed more effectively to meet their particular needs and wants. An understanding of consumer behavior is therefore crucial to make marketing activity more successful. Classifying tourists according to their personality traits gives marketing managers the ability to develop promotional themes linking the personality of their brand to that of the consumer, essentially linking the product personality to consumer personality.

Although the conceptual linkage between tourism and consumer behavior is yet to be fully explored, better comprehension of these constructs helps marketers understand their role particularly in the formation of strategy formulation process. Successful marketing practices must be based on reliable knowledge of consumer behavior, and growing comprehension of tourist behavior will likely shed some light on the consumption of tourism products and services, and the mechanism that underlie the economics of organizations.

Adventure travel represents an interesting form of consumer behavior that has seen tremendous growth as a segment of the tourism industry. A hierarchical model of personality was used to identify the personality traits predictive of a broad measure of adventure travel. Types of travel are distinguished, and trait predictors of each of the constructs were examined. The results reveal that the motivational network of traits is different for the divergent types of travel interest.

Limitation of Findings

The structural limitations of this study included: the limited amount of literature directly associated with personality and adventure travel. Adventure is often equated with risk taking and it is assumed that individuals are motivated to participate in adventurous

activities to experience risk (Ewert & Hollenhorst, 1989; Meier 1978; Miles 1978; Walle, 1997; Yerkes 1985). A focus on risk taking limits the concept of adventure which can be generalized to deal with diverse phenomena (Ewert 1987). As a result, a broader perspective of “adventure” which considers other behaviors and motivations have not been fully explored (Walle, 1997). Viewing adventure only from the risk viewpoint has prevented more general models of adventure tourism and their marketing implications from being fully explored. As a consequence, consumer behavior theories were adopted to examine adventure travel behavior. It was noted earlier that literature explaining the relationship between personality and tourism behavior has been inconclusive. Academics have attempted to explain tourist behavior by developing typologies of tourists and their behaviors; however the underlying psychological traits that contribute to propensity toward adventure travel behavior have not been sufficiently explored.

Issues relating to the measurement of some instruments and scales may also invite additional discussion. One of the limitations was constructing an index to categorize respondents according to soft versus hard adventure travel. Previous research used cluster analysis (Sung, 2004) to determine segments. The advantage of this approach is that it is data driven; the disadvantage is also that it is data driven. The basic alternative to that approach is to use judgment and the extant literature to select a subset of the variables included in a survey to create an index (Bloch, Sherrell, & Ridgway, 1986).

Guttman scaling approach seemed an interesting alternative and was used to categorize respondents according to the soft versus hard continuum. In retrospect, Mokken scaling may have been a more appropriate analysis method for assessing the unidimensionality of a set of items. As a nonparametric stochastic version of Guttman

scale analysis, the Mokken model provides a useful starting point in scale construction since it does not impose severe restrictions on the functional form of the item trace line like Guttman scaling. Mokken requires only that the item trace lines are monotonically increasing and that they do not cross. Mokken scale analysis can be applied usefully if a "dominance" relation is assured between the underlying trait (e.g., adventurousness) and the item scores rather than a "preference" relation. Mokken scale analysis can be applied usefully if a "dominance" relation between the underlying trait (e.g., adventurousness) and the item scores exists. To illustrate, a set of hypothesized dominance items in tourism could be (1) "I have seen Niagara Falls", (2) "I took a tour down Niagara Falls", and (3) "I walked on a rope above Niagara Falls." A dominance relation means that the more adventurous a respondent is, the greater the probability that he or she endorses an activity.

With regard to research methodology, sampling of subjects from *National Geographic Adventure* magazine's subscription list might become an issue in terms of their representativeness. It was noted earlier that the subjects ($N=339$) were drawn from a priori known group, having similar interest in adventure travel no matter whether they had been on an adventure trip. As subscribers to a magazine focused on adventure, subjects were considered more actively involved in adventure travel. As a result, they may have unique group characteristics or travel behavior associated with adventure travel than the general population. Nevertheless, the target population of this study was not the general public in the U.S.; rather it was adventure travelers who would be interested in taking an adventure trip. In extending results to the general public, the extension or generalization of the study results should be treated with a degree of caution.

Next, the survey instrument used to assess biases in the dataset from non-responders included a limited number of questions due to restricted funds and space constraints in the questionnaire layout. As a result, several constructs specific to the study problem as well as questions addressing demographics, were not included in the non-response survey. Finally, the study was limited by a low survey response rate due to the length of the survey and declining mail survey rates in the U.S. (Dillman, 2000).

Future Research

The study was somewhat exploratory in that it examined personality traits of adventure travelers. Further research is needed to understand the role personality plays in tourist behavior examining various types of tourists and exploring different traits. Replicating the research with a general population sample may offer insights into the differences between adventure travelers and mass travelers.

Another area for future research involves investigating the motivational profile of individuals who participate in different adventure activities. That is, is the profile different for kayakers as compared to hikers, walkers, or cyclists? Next, future studies should improve measurements of compound and situational traits as well as types of adventure experiences.

Future researchers need to improve the measurement of adventure travel propensity. The current study factor analyzed a list of dream travel experiences in order to identify indicators of ATP. However, a more effective tool may be an index where individuals would have an adventurousness “score.” Development of an adventure travel index would emphasize different aspects of adventure and result in a more realizable

format for categorization the adventure travel market. Use of the traditional typology of soft versus hard adventure travel fails to address that individuals participate in both types of travel at different times for different reasons. An adventure travel index would address varied motivations for participation.

While the current study has demonstrated the positive relationship between personality traits and adventure travel behavior, this study failed to address specific benefits adventure travelers seek from their experiences. Therefore, future studies should include a collection of qualitative data that would provide more details information regarding specific benefits sought from adventure travel experiences.

The current study drew participants from a *National Geographic Adventure* magazine subscriber list. It can be inferred that this group is representative of adventure travelers; however adventure travelers who do not subscribe are not accounted for. To obtain a more accurate understanding of the personality traits predictive of adventure travel propensity a general population sample is suggested. This study is by no means definitive; it is merely a contribution to what will hopefully be ever-increasing body of knowledge in the area of personality and adventure tourism.

Final Thoughts

The current study further extended and tested a Meta-Theoretic Model of Motivation and Personality (3M Model). In general, testing the 3M Model in a tourism context further validated the model. Consistent with other studies (Scott & Mowen, 2007; Todd & Mowen, 2005; Mowen, 2000) hierarchical regression models explained personality and traits predictive of ATP.

Several criteria were proposed for evaluating the 3M Model (Mowen, 2000). First, it should account for more variance in behavior than traditional models of personality. The model should account for more than five to ten percent of the variance in measures of behavioral tendencies to act within specific domains of behavior. Next, the 3M Model should have practical value. According to one of the fathers of social psychology, Kurt Lewin, “there is nothing so practical as a good theory” (p. 239). Unless the model shows promise for applied uses by managers and public-policy makers, it will have not made a contribution to the literature. Third, does the theory add parsimony to the literature? If the model cannot identify a limited set of individual differences variables that influence behavior across a diverse range of situations, it will not be successful. Finally, it should generate new knowledge.

Previous personality theories represent the basis for integrative models of personality and motivation. Today, the focus is on developing very tight, mid-range theories good at identifying relationships among a limited set of constructs within a single domain of behavior. The time is right for consumer researchers to begin creating competing models of personality that link the many piecemeal developed constructs available today into a coherent general structure that shows the relationship among traits, situations, and the enduring behavioral tendencies of consumers.

APPENDICES

Appendix A: Survey Instrument

The survey has four sections: Section 1 asks about past recreation and travel experiences and future recreation and travel plans. Section 2 asks about different personality characteristics. Section 3 asks about travel information needs, pre-trip planning, and post-travel behavior. Finally, Section 4 asks general demographic information that will be used for descriptive purposes only. The survey should take about 20-25 minutes to complete. Thank you in advance for your participation!

Please return your completed questionnaire in the enclosed postage paid envelope to:

Michigan State University-Travel Survey; 131 Natural Resources Building;
East Lansing, MI 48824-1222

SECTION 1: RECREATION AND TRAVEL EXPERIENCES AND INTERESTS

1. Do you currently hold a valid U.S. passport? *Please* ☐ no ☐ yes
mark ☒ one.
2. If yes, at what age did you first apply? _____ years (e.g., 21 years)
3. Thinking of vacation travel only, indicate those continents/regions you visited on a past trip or plan to visit in the future. *Please mark ☒ for each column.*

	Have traveled to in the <u>past</u>	Plan to travel to in the <u>future</u>
Africa	☐	☐
Antarctica	☐	☐
Arctic	☐	☐
Australia	☐	☐
Caribbean (e.g., Aruba, Cuba, Dominican Republic, Jamaica)	☐	☐
Central America (e.g., Belize, Costa Rica, Guatemala, Honduras)	☐	☐
Central Europe (e.g., Austria, Czech Republic, Poland)	☐	☐
Eastern Europe (e.g., Russian Federation, Ukraine)	☐	☐
Mexico	☐	☐
Middle East (e.g., Israel, Jordan, Pakistan, Turkey)	☐	☐
New Zealand	☐	☐
North America (Canada or U.S.)	☐	☐
North Asia (e.g., China, Hong Kong, Japan, Korea)	☐	☐
South America (e.g., Argentina, Brazil, Chile, Ecuador)	☐	☐
South Pacific (e.g., Fiji, Samoa, Tahiti)	☐	☐
South and Southeast Asia (e.g., Cambodia, India, Malaysia)	☐	☐
Western Europe (e.g., France, Germany, Italy, United Kingdom)	☐	☐

4. How many vacations have you taken in the U.S./Canada _____ International _____
past 3 years?
5. How many vacations do you plan to take in U.S./Canada _____ International _____
the next 3 years?

6. People plan vacation trips in different ways. *Please circle your level of agreement with the following, where 1=Strongly Disagree and 5=Strongly Agree.*

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I plan my entire trip well in advance	1	2	3	4	5
I plan most of my vacations before I leave and then fill in the details after I arrive	1	2	3	4	5
I plan most of my vacation once I reach my destination	1	2	3	4	5

7. From the list of recreation and travel activities provided, indicate those you have experienced or plan to experience in the future. *Please mark ☒ one for each column.*

	Already experienced during my travels in the <u>past</u>	Plan to experience during my travels in the <u>future</u>
Attending concert/play/dance	☐	☐
Attending local festivals/fairs	☐	☐
Attending spectator sporting events	☐	☐
Backpacking	☐	☐
Bicycle riding	☐	☐
Boating	☐	☐
Camping	☐	☐
Cave exploring/spelunking	☐	☐
City tours/short guided excursions	☐	☐
Climbing - mountain/rock/ice	☐	☐
Dining	☐	☐
Getting to know local people	☐	☐
Golfing/tennis	☐	☐
Hiking	☐	☐
Hunting/fishing	☐	☐
Kayaking/canoeing	☐	☐
Mountain biking	☐	☐
Night life/visiting night clubs/dancing	☐	☐
Observing wildlife/bird watching	☐	☐
Safaris	☐	☐
Scenic driving	☐	☐

Scuba diving/surfing	☐	☐
Shopping	☐	☐
Skiing/snowmobiling	☐	☐
Swimming/sunbathing/beach activities	☐	☐
Trekking	☐	☐
Visiting casinos/gambling/gaming	☐	☐
Visiting friends or relatives	☐	☐
Visiting gardens/botanical gardens	☐	☐
Visiting local/state/national parks	☐	☐
Visiting museums/galleries	☐	☐
Visiting places of historical interest	☐	☐
Visiting spas	☐	☐
Visiting theme/amusement parks	☐	☐
Visiting zoos	☐	☐
Volunteering while on vacation	☐	☐
Waterskiing/snorkeling	☐	☐
Other, please describe		

SECTION 2: PERSONALITY CHARACTERISTICS AND TRAVEL INTERESTS & PREFERENCES

8. People have different personalities. How often do these characteristics describe how you see yourself in everyday life? *Please circle one for each statement, where 1=Never and 9=Always.*

	Never								Always	
Bashful	1	2	3	4	5	6	7	8	9	
Introverted	1	2	3	4	5	6	7	8	9	
Quiet	1	2	3	4	5	6	7	8	9	
Shy	1	2	3	4	5	6	7	8	9	
Precise	1	2	3	4	5	6	7	8	9	
Efficient	1	2	3	4	5	6	7	8	9	
Organized	1	2	3	4	5	6	7	8	9	
Orderly	1	2	3	4	5	6	7	8	9	
Creative	1	2	3	4	5	6	7	8	9	
Imaginative	1	2	3	4	5	6	7	8	9	
Find novel solutions	1	2	3	4	5	6	7	8	9	
Original	1	2	3	4	5	6	7	8	9	
Tender hearted	1	2	3	4	5	6	7	8	9	
Agreeable	1	2	3	4	5	6	7	8	9	
Softhearted	1	2	3	4	5	6	7	8	9	
Kind	1	2	3	4	5	6	7	8	9	
Moody	1	2	3	4	5	6	7	8	9	

Temperamental	1	2	3	4	5	6	7	8	9
Emotional	1	2	3	4	5	6	7	8	9
Touchy	1	2	3	4	5	6	7	8	9

9. The following statements pertain to preference for different or unique products. Please circle your level of agreement for each statement, where 1=Strongly Disagree and 5= Strongly Agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
An important goal when I buy merchandise is to find something that communicates my uniqueness	1	2	3	4	5
Often buy products to help shape a more unusual personal image	1	2	3	4	5
Products that are unusual assist me in establishing a distinctive image	1	2	3	4	5
When it comes to the products I buy I have often broken customs and rules	1	2	3	4	5
Often violated the understood rules of my social group regarding what to buy	1	2	3	4	5
Often gone against the understood rules of my social group regarding how certain products are properly used	1	2	3	4	5
Dislike products or brands that are customarily purchased by everyone	1	2	3	4	5
Once they become popular among the general public I give up wearing fashions I've purchased	1	2	3	4	5
The more commonplace a product or brand is among the general population, the less interested I am in buying it	1	2	3	4	5

10. People have different personalities. How often do these characteristics describe how you see yourself in everyday life? Please circle one for each statement, where 1=Never and 9=Always.

	Never							Always	
Drawn to experiences with an element of danger	1	2	3	4	5	6	7	8	9
Seek an adrenaline rush	1	2	3	4	5	6	7	8	9
Actively seek out new experiences	1	2	3	4	5	6	7	8	9
Enjoy taking more risks than others	1	2	3	4	5	6	7	8	9
Focus on my body and how it feels	1	2	3	4	5	6	7	8	9
Devote time each day to improving my body	1	2	3	4	5	6	7	8	9
Work hard to keep my body healthy	1	2	3	4	5	6	7	8	9
Feel making my body look good is important	1	2	3	4	5	6	7	8	9
Enjoy cultural immersion when I travel	1	2	3	4	5	6	7	8	9

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Seek hands-on cultural encounters as I travel	1	2	3	4	5	6	7	8	9
Embrace the world celebrate its nuances as I travel	1	2	3	4	5	6	7	8	9
Interested in the traditions of indigenous cultural communities (e.g., festivals, rituals) as I travel	1	2	3	4	5	6	7	8	9
Try to visit local museum or art gallery as I travel	1	2	3	4	5	6	7	8	9
Travel should be about enriching knowledge	1	2	3	4	5	6	7	8	9
Enjoy learning new things more than most people	1	2	3	4	5	6	7	8	9
People consider me to be intellectual	1	2	3	4	5	6	7	8	9
Enjoy working on new ideas	1	2	3	4	5	6	7	8	9
Value information as the most important resource	1	2	3	4	5	6	7	8	9
Have an altruistic nature	1	2	3	4	5	6	7	8	9
Give to others	1	2	3	4	5	6	7	8	9
Sacrifice my goals to help others	1	2	3	4	5	6	7	8	9
Selfless in giving time to others	1	2	3	4	5	6	7	8	9
Enjoy buying expensive products	1	2	3	4	5	6	7	8	9
Like to own nice products more than most people	1	2	3	4	5	6	7	8	9
Acquiring valuable products is important to me	1	2	3	4	5	6	7	8	9
Enjoy owning luxurious products	1	2	3	4	5	6	7	8	9
Enjoy competition more than others	1	2	3	4	5	6	7	8	9
Feel it is important to outperform others	1	2	3	4	5	6	7	8	9
Enjoy testing my abilities against others'	1	2	3	4	5	6	7	8	9
Feel winning is extremely important	1	2	3	4	5	6	7	8	9

11. The following statements are about your fashion style. Please indicate your level of agreement with each by circling the number that best describes you, where 1=Strongly Disagree and 5=Strongly Agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Aware of fashion trends and want to be one of the first to try them	1	2	3	4	5
First to try new fashion; therefore, many people regard me as being a fashion leader	1	2	3	4	5
Important for me to be a fashion leader	1	2	3	4	5
Confident in my ability to recognize fashion trends	1	2	3	4	5
Clothes are one of the most important ways I have of expressing my individuality	1	2	3	4	5
Don't spend a lot of time on fashion-related activities	1	2	3	4	5

SECTION 3: TRAVEL PLANNING AND NEEDS INFORMATION

12. Over the past 12 months have you used the following sources when booking or reserving a vacation trip? Please mark ☒ each of the sources used, and if used, circle how helpful you found it.

	Used		Not	Somewhat	Very
	No	Yes	Helpful	Helpful	Helpful
Hotels.com	☐	☐	1	2	3
Priceline.com	☐	☐	1	2	3
Orbitz.com	☐	☐	1	2	3
Expedia.com	☐	☐	1	2	3
Kayak.com	☐	☐	1	2	3
Travelocity.com	☐	☐	1	2	3
Hotwire.com	☐	☐	1	2	3
Cheaptickets.com	☐	☐	1	2	3
Local or government tourism websites	☐	☐	1	2	3
Hotel websites	☐	☐	1	2	3
Tour operators/Lodges (US/Foreign based)	☐	☐	1	2	3
Travel agents	☐	☐	1	2	3
Other, please describe					

13. Over the past 12 months have you used the following sources when booking or reserving a vacation trip? Please mark ☒ each of the sources used, and if used, circle how helpful you found it.

	Used		Not	Somewhat	Very
	No	Yes	Helpful	Helpful	Helpful
Accommodation websites (e.g., hotels.com)	☐	☐	1	2	3
Airline websites	☐	☐	1	2	3
Local or government tourism websites	☐	☐	1	2	3
Stories/blogs from travelers and travel writers	☐	☐	1	2	3
Search engines (e.g., Google, Yahoo)	☐	☐	1	2	3
Travel websites (e.g., Expedia, Lonely Planet)	☐	☐	1	2	3
TV travel shows	☐	☐	1	2	3
Guidebooks	☐	☐	1	2	3
Magazines	☐	☐	1	2	3
Newspapers	☐	☐	1	2	3
Advice/recommendations from friends or family	☐	☐	1	2	3
Travel agents	☐	☐	1	2	3
Tour brochures	☐	☐	1	2	3
Travel trade shows	☐	☐	1	2	3
Other, please describe					

14. Thinking about your last vacation trip, before going did you do any of the following activities? Please mark ☒ one for each.

Purchased new luggage/gear	☐ yes ☐ no	Read books about the local culture	☐ yes ☐ no
Got into good physical shape	☐ yes ☐ no	Learned some of the local language	☐ yes ☐ no
Purchased travel guide books	☐ yes ☐ no	Watched programs on the local culture	☐ yes ☐ no

15. Thinking about your last vacation trip, did you share you travel experiences with friends/family using any of these communication types? Please mark ☒ one for each.

Posting photos on-line during trip	☐ yes ☐ no	Telling stories	☐ yes ☐ no
Posting photos on-line after trip	☐ yes ☐ no	Blog diary during trip	☐ yes ☐ no
Sending postcards by mail	☐ yes ☐ no	Blog diary after trip	☐ yes ☐ no

16. Over the past 12 months have you used the following technologies when traveling on a vacation trip? Please mark ☒ each of the sources used, and if used, circle how helpful you found it.

	Used		Not Helpful	Somewhat Helpful	Very Helpful
	No	Yes			
Camera/Digital camera	☐	☐	1	2	3
Internet café or wireless areas	☐	☐	1	2	3
Mobile phone	☐	☐	1	2	3
I-Pod/MP3/MP4 player	☐	☐	1	2	3
Laptop computer with wireless access	☐	☐	1	2	3
Global Positioning System (GPS)	☐	☐	1	2	3
Cellular phone with Internet access	☐	☐	1	2	3
Cellular phone with camera	☐	☐	1	2	3
Pager	☐	☐	1	2	3
Personal digital assistant (e.g., Blackberry)	☐	☐	1	2	3
Personal digital assistant with Internet access	☐	☐	1	2	3
Laptop computer	☐	☐	1	2	3
Desktop computer	☐	☐	1	2	3
Global Positioning System (GPS) in vehicle	☐	☐	1	2	3
On Star service in vehicle	☐	☐	1	2	3
Other, please describe					

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17. Thinking about the words “Dream it” read the list of travel experiences below.
Please indicate the experiences you have dreamed of having by circling 1=Not at all and 5=Absolutely.

<i>I've dreamed of...</i>	Not at all					Absolutely
Bicycling across the USA	1	2	3	4	5	
Staying at a hot spring spa in Japan	1	2	3	4	5	
Visiting all the seven continents	1	2	3	4	5	
Getting off the beaten track	1	2	3	4	5	
Surf fishing on the beach at Cape Hatteras	1	2	3	4	5	
Camping in Glacier National Park	1	2	3	4	5	
Visiting a market in India	1	2	3	4	5	
Hiking in rural Ireland	1	2	3	4	5	
Shopping in Paris	1	2	3	4	5	
Making snow angels in Alaska	1	2	3	4	5	
Visiting the Seven Wonders of the World	1	2	3	4	5	
Running with the bulls in Spain	1	2	3	4	5	
Cage-diving with Great White Sharks	1	2	3	4	5	
Rock climbing on every continent	1	2	3	4	5	
Swimming in every ocean	1	2	3	4	5	
Rafting in the Grand Canyon	1	2	3	4	5	
Cliff diving in Jamaica	1	2	3	4	5	
Hiking in a rainforest	1	2	3	4	5	
Snorkeling the Great Barrier Reef	1	2	3	4	5	
Visiting the pyramids in Egypt	1	2	3	4	5	
Going on a safari in Africa	1	2	3	4	5	
Walking down the ancient paths of China	1	2	3	4	5	
Exploring the ancient civilization of Mayans	1	2	3	4	5	
Relaxing on the white beaches of Bora-Bora	1	2	3	4	5	
Other, please describe						

18. Thinking about your last vacation trip, did your travel experience change anything about your lifestyle at home? Please mark ☒ one for each.

A new recreation activity at home	☐ yes ☐ no	Interested in diet and cuisine	☐ yes ☐ no
Attitude changed about cultures/places	☐ yes ☐ no	Interested in healthy habits	☐ yes ☐ no
Donated money to a charity or cause	☐ yes ☐ no	Volunteered time or resources	☐ yes ☐ no
Learned a new language	☐ yes ☐ no	Other, please describe	

19. Please specify which of these age decades you FEEL you really belong to:
preteens, teens, twenties, thirties, forties, fifties, sixties, seventies, or eighties.
Please mark ☒ one for each.

	preteens	teens	20s	30s	40s	50s	60s	70s	80s
I FEEL as though I am in my	☐	☐	☐	☐	☐	☐	☐	☐	☐
I LOOK as though I am in my	☐	☐	☐	☐	☐	☐	☐	☐	☐
I DO most things as though I were in my	☐	☐	☐	☐	☐	☐	☐	☐	☐
My recreation and travel INTERESTS are mostly those of a person in his/her	☐	☐	☐	☐	☐	☐	☐	☐	☐

SECTION 4: DEMOGRAPHIC INFORMATION FOR DESCRIPTIVE PURPOSES ONLY

20. What is your gender? Please mark ☒ one. ☐ female ☐ male

21. What is your ZIP code? _____ zip

22. What year were you born? _____ (e.g., 1966)

23. Counting yourself, how many people are currently living in your household?

Number of adults (18 years and up) _____ Number of children (under 18 years) _____

24. What is your current marital status? Please mark ☒ one.

☐ Single ☐ Widowed ☐ Living with significant other
☐ Married ☐ Divorced ☐ Other (please specify) _____

25. What is your ethnicity and race? Please mark ☒ one.

☐ White ☐ Hispanic/Latino/Spanish origin ☐ Mixed (please specify)
☐ African American/Black ☐ Hawaiian/other Pacific Islander ☐ Other (please specify)
☐ Asian ☐ American Indian/Alaska Native

26. What is your highest level of education? Please mark ☒ one.

☐ Some high school ☐ Some college ☐ College degree, 4 year college
☐ High school degree ☐ Associate degree, 2 year college ☐ Advance degree (e.g., MBA, MS)

27. What was your gross household income in 2005? Please mark ☒ one.

- | | | | |
|---|---|---|---|
| ☐ under \$35,000 | ☐ \$50,000 -
\$74,999 | ☐ \$100,000 -
\$149,999 | ☐ \$200,000 -
\$249,999 |
| ☐ \$35,000 -
\$49,999 | ☐ \$75,000 -
\$99,999 | ☐ \$150,000 -
\$199,999 | ☐ \$250,000 or more |

28. Are you currently? Please mark ☒ one.

- | | | |
|--|---|--|
| ☐ Working full-
time | ☐ Going to
school | ☐ Retired |
| ☐ Working part-
time | ☐ A homemaker | ☐ Other, please describe
_____ |

Thank you, we appreciate your time!

Appendix B: Survey Cover Letter

Date
Name
Address
City, State zip code

Dear Name:

You have been randomly selected to participate in a scientific study on recreation and travel being conducted by Michigan State University and supported by National Geographic Adventure magazine. Sharing your thoughts on recreation and travel experiences and interests will assist in our research related to travel.

As a thank you for taking the time to complete the survey, you have the chance to win two free airline tickets on Continental Airlines. Simply return your completed survey in the prepaid envelope we provided and your name will be entered in a drawing for two free airline tickets to your choice of a variety of gateways in North America, Europe or South America. There will be additional chances to win travel-related prizes such as travel gear and accessories, maps, and travel books. These prizes are not part of any sales effort, but were donated by a reputable partner to the research project.

You must be 18 years of age or older to complete the survey. The survey will take 20-25 minutes to complete. You indicate your voluntary agreement to participate by completing and returning this survey. However, if you choose not to complete all or part of the questions, you will not suffer any penalty. You are free to discontinue your participation at any time. Your responses will be anonymous and your privacy will be protected to the maximum extent allowable by law.

If you have any questions regarding your role and rights as a study participant, or would like to register a complaint about this study, you may contact, anonymously, if you wish, Dr. Peter Vasilenko, Director of Human Research Protection Programs, at (517) 355-2180, FAX: (517) 432-4503, email: irb@msu.edu, or regular mail: HRPP, 202 Olds Hall, East Lansing, MI 48824. We greatly appreciate your cooperation!

Sincerely,

Paige P. Schneider, Ph.D. Candidate
Michigan State University
schne252@msu.edu
(517) 432-0312

Dr. Christine A. Vogt, PhD
Michigan State University
vogtc@msu.edu

Enclosures

Appendix C: Postcard Reminder

10/29/2007

Hello,

Recently you should have received a survey about recreation and travel interests and preferences from Michigan State University. If you have already mailed your survey, thank you! Your participation will help us better understand travel behavior. We appreciate your time in sharing your thoughts.

If you haven't found the time to complete, please do so in the next few days. If you did not receive the survey, please contact us by e-mail or phone.

Paige Schneider (517) 432-0312 or
schne252@msu.edu

Thank you for your participation!

Appendix D: UCRIHS Approval Letter

**MICHIGAN STATE
UNIVERSITY**

**Initial IRB
Application
Determination
*Exempt***

October 17, 2007

To: Christine VOGT
131 Natural Resources
MSU

Re: IRB# X07-087 Category: EXEMPT 2
Approval Date: October 17, 2007

Title: Adventure Travelers and Their Traits: A Hierarchical Model Approach

The Institutional Review Board has completed their review of your project. I am pleased to advise you that your project has been deemed as exempt in accordance with federal regulations.

The IRB has found that your research project meets the criteria for exempt status and the criteria for the protection of human subjects in exempt research. Under our exempt policy the Principal Investigator assumes the responsibilities for the protection of human subjects in this project as outlined in the assurance letter and exempt educational material. The IRB office has received your signed assurance for exempt research. A copy of this signed agreement is appended for your information and records.

Renewals: Exempt protocols do not need to be renewed. If the project is completed, please submit an *Application for Permanent Closure*.

Revisions: Exempt protocols do not require revisions. However, if changes are made to a protocol that may no longer meet the exempt criteria, a new initial application will be required.

Problems: If issues should arise during the conduct of the research, such as unanticipated problems, adverse events, or any problem that may increase the risk to the human subjects and change the category of review, notify the IRB office promptly. Any complaints from participants regarding the risk and benefits of the project must be reported to the IRB.

Follow-up: If your exempt project is not completed and closed after three years, the IRB office will contact you regarding the status of the project and to verify that no changes have occurred that may affect exempt status.

Please use the IRB number listed above on any forms submitted which relate to this project, or on any correspondence with the IRB office.

Good luck in your research. If we can be of further assistance, please contact us at 517-355-2180 or via email at IRB@msu.edu. Thank you for your cooperation.

Sincerely,



Peter Vasilenko, Ph.D.
SIRB Chair

cc: Paige Schnelder
172 Natural Resources

Appendix E: Non-response Survey

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RECREATION AND TRAVEL PREFERENCES SURVEY

29. Do you currently hold a valid U.S. passport? Please mark ☒ ☐ ☐
one. no yes

30. Thinking of vacation travel during your lifetime, indicate where you have visited on a past trip or plan to visit in the future. Please mark ☒ for each column.

	Traveled to in the <u>past</u>	Plan to travel to in <u>future</u>
North America (U.S., Canada, Mexico)	☐	☐
International (Continent <i>other than</i> North America)	☐	☐

31. How many vacations have you U.S./Canada/Mexico _____ International _____
taken in the past 3 years?

32. People have different personalities. How often do these characteristics describe how you see yourself in everyday life? Please circle one for each statement, where 1=Never and 9=Always.

	Never Always								
Bashful	1	2	3	4	5	6	7	8	9
Introverted	1	2	3	4	5	6	7	8	9
Quiet	1	2	3	4	5	6	7	8	9
Shy	1	2	3	4	5	6	7	8	9
Precise	1	2	3	4	5	6	7	8	9
Efficient	1	2	3	4	5	6	7	8	9
Organized	1	2	3	4	5	6	7	8	9
Orderly	1	2	3	4	5	6	7	8	9
Creative	1	2	3	4	5	6	7	8	9
Imaginative	1	2	3	4	5	6	7	8	9
Find novel solutions	1	2	3	4	5	6	7	8	9
Original	1	2	3	4	5	6	7	8	9
Tender hearted	1	2	3	4	5	6	7	8	9
Agreeable	1	2	3	4	5	6	7	8	9
Softhearted	1	2	3	4	5	6	7	8	9
Kind	1	2	3	4	5	6	7	8	9
Moody	1	2	3	4	5	6	7	8	9
Temperamental	1	2	3	4	5	6	7	8	9
Emotional	1	2	3	4	5	6	7	8	9
Touchy	1	2	3	4	5	6	7	8	9
Drawn to experiences with an element of danger	1	2	3	4	5	6	7	8	9
Seek an adrenaline rush	1	2	3	4	5	6	7	8	9

Actively seek out new experiences	1	2	3	4	5	6	7	8	9
Enjoy taking more risks than others	1	2	3	4	5	6	7	8	9
Focus on my body and how it feels	1	2	3	4	5	6	7	8	9
Devote time each day to improving my body	1	2	3	4	5	6	7	8	9
Work hard to keep my body healthy	1	2	3	4	5	6	7	8	9
Feel making my body look good is important	1	2	3	4	5	6	7	8	9

33. What was the primary reason for not responding to the survey?? Please mark ☒ one.

☐ Survey came at the wrong time

☐ Survey was too long

☐ Questions were too difficult

☐ Don't travel

☐ Don't do surveys

☐ Don't participate in research studies

☐ Other, please describe _____

34. What is your gender? Please mark

☒ one.

☐ female

☐ male

35. What year were you born? _____ (e.g.,1966)

Thank you, we appreciate your time!

Appendix F: Non-response Survey Cover Letter

Date, 2008

Name
Address
City, State zip code

Dear Name:

During fall of 2007 you were randomly selected to receive a Recreation and Travel Preference survey conducted by Michigan State University and supported by National Geographic. As To date you have not returned either of the two surveys sent to your home.

In an effort to accurately understand recreation and travel preferences, we are seeking a full range of input, including yours Would you please consider answering these few critical questions and returning the survey in the enclosed prepaid envelope? We assure you this will be our last attempt to contact you regarding this study.

If you would please take the time to answer this one page survey it would be greatly appreciated. In addition, by filling out and returning this survey, your name will still be included in the drawing for the chance to win two free airline tickets on Continental Airlines for travel to a number of destinations in North America, South America, and Europe. The drawing will be held February 6,2008. Thank you for your time and consideration.

Again, many thanks for your time! Your input is essential to the success of our study.

Sincerely,

Paige P. Schneider, Ph.D. Candidate
Michigan State University
schne252@msu.edu
(517) 432-0312

Dr. Christine A. Vogt, PhD
Michigan State University
vogtc@msu.edu

Enclosures:
Short Survey
Prepaid return envelope

Appendix G: Survey Instrument Key

Construct: Traveler Type; consists of three categories: soft adventure traveler (SAT), hard adventure traveler (HAT), and mass traveler.
 Questions 1, 2, 3, 4, 5, and 7 form an index to determine traveler type.
 Source: Measures adapted for this study based (CTC, 2003; OIA, 2006; Jang, Morrison, & O'Leary, 2000; Pearce & Caltabiano, 1983; Sung et al., 1997; TIA, 1998; TIA, 2006).

Do you currently hold a valid U.S. passport? Please mark ☒ one. ☐ no ☐ yes
 If yes, at what age did you first apply? _____ years (e.g., 21 years)

Thinking of vacation travel only, indicate those continents/regions you visited on a past trip or plan to visit in the future. Please mark ☒ for each column.

	Have traveled to in the past	Plan to travel to in the future
Africa	☐	☐
Antarctica	☐	☐
Arctic	☐	☐
Australia	☐	☐
Caribbean (e.g., Aruba, Cuba, Dominican Republic, Jamaica)	☐	☐
Central America (e.g., Belize, Costa Rica, Guatemala, Honduras)	☐	☐
Central Europe (e.g., Austria, Czech Republic, Poland)	☐	☐
Eastern Europe (e.g., Russian Federation, Ukraine)	☐	☐
Mexico	☐	☐
Middle East (e.g., Israel, Jordan, Pakistan, Turkey)	☐	☐
New Zealand	☐	☐
North American (Canada or U.S.)	☐	☐
North Asia (e.g., China, Hong Kong, Japan, Korea)	☐	☐
South America (e.g., Argentina, Brazil, Chile, Ecuador)	☐	☐
South Pacific (e.g., Fiji, Samoa, Tahiti)	☐	☐
South and Southeast Asia (e.g., Cambodia, India, Malaysia)	☐	☐
Western Europe (e.g., France, Germany, Italy, United Kingdom)	☐	☐

How many vacations have you taken in the past 3 years? U.S./Canada _____ International _____

How many vacations do you plan to take in the next 3 years? U.S./Canada _____ International _____

National Geographic Trip Planning Behavior
 Question 6
 Source: Trip Planning Behavior Scale (Vogt, 1997).

People plan vacation trips in different ways. Please circle your level of agreement with the following, where 1=Strongly Disagree and 5=Strongly Agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I plan my entire trip well in advance	1	2	3	4	5
I plan most of my vacations before I leave and then fill in the details after I arrive	1	2	3	4	5
I plan most of my vacation once I reach my destination	1	2	3	4	5

From the list of recreation and travel activities provided, indicate those you have experienced or plan to experience in the future. Please mark ☒ one for each column.

	Already experienced during my travels in the past	Plan to experience during my travels in the future
Attending concert/play/dance	☐	☐
Attending local festivals/fairs	☐	☐
Attending spectator sporting events	☐	☐
Backpacking	☐	☐
Bicycle riding	☐	☐
Boating/water skiing	☐	☐
Camping	☐	☐
Cave exploring/spelunking	☐	☐
City tours/short guided excursions	☐	☐
Climbing - mountain/rock/ice	☐	☐
Dining	☐	☐
Getting to know local people	☐	☐
Golfing/tennis	☐	☐
Hiking	☐	☐
Hunting/fishing	☐	☐
Kayaking/canoeing	☐	☐
Mountain biking	☐	☐
Night life/visiting night clubs/dancing	☐	☐
Observing wildlife/bird watching	☐	☐
Safaris	☐	☐

Scenic driving	☐	☐
Scuba diving/surfing	☐	☐
Shopping	☐	☐
Skiing/snowmobiling	☐	☐
Swimming/sunbathing/beach activities	☐	☐
Trekking	☐	☐
Visiting casinos/gambling/gaming	☐	☐
Visiting friends or relatives	☐	☐
Visiting gardens/botanical gardens	☐	☐
Visiting local/state/national parks	☐	☐
Visiting museums/galleries	☐	☐
Visiting places of historical interest	☐	☐
Visiting spas	☐	☐
Visiting theme/amusement parks	☐	☐
Visiting zoos	☐	☐
Volunteering while on vacation	☐	☐
Waterskiing/snorkeling	☐	☐
Other, please describe	_____	_____

Construct: Elemental Traits

Eight Elemental Traits (OCEANMAP)

1. Openness to experience
2. Conscientiousness
3. Extraversion
4. Agreeableness
5. Neuroticism (Emotional Instability)
6. Material needs
7. Need for arousal
8. Physical/body needs

Questions 8 and 10

Sources of the Elemental Traits:

Five Factor Model of personality (Wiggins, 1996) –

A large number of studies have supported it as providing the most fundamental set of traits.

Evolutionary Psychology (Buss, 1988) –

Added material needs and physical needs based on the proposition that behavioral tendencies as well as biological mechanisms (e.g., breathing, digesting) evolved as adaptations to the environment over eons.

Optimum Stimulation Level Theory (Mehrabian & Russell, 1974; Zuckerman, 1979) –

None of the other seven traits had properties related to activation of behavior and how people control their level of stimulation, therefore Need for arousal was included.

Measurement Source: Licata, Mowen & Brown, 2003.

People have different personalities. How often do these characteristics describe how you see yourself in everyday life? *Please circle one for each statement, where 1=Never and 9=Always.*

	Never 1	Always 9
Bashful	Elemental Trait: Introversion	
Introverted		
Quiet		
Shy		
Precise	Elemental Trait: Conscientiousness	
Efficient		
Organized		
Orderly		
Creative	Elemental Trait: Openness to Experience	
Imaginative		
Find novel solutions		
Original		
Tender hearted	Elemental Trait: Agreeable	
Agreeable		
Softhearted		
Kind		
Moody	Elemental Trait: Neuroticism/Emotional Instability	
Temperamental		
Emotional		
Touchy		

Construct: Need for Uniqueness
Measurement: Need for Uniqueness Scale
Question 9

Source: Need for Uniqueness Scale obtained from Tian, Beard & Hunter, 2001
The following statements pertain to preference for different or unique products. *Please circle your level of agreement for each statement, where 1=Strongly Disagree and 5=Strongly Agree.*

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
An important goal when I buy merchandise is to find something that communicates my uniqueness	1	2	3	4	5
Often buy products to help shape a more unusual personal image	1	2	3	4	5
Products that are unusual assist me in establishing a distinctive	1	2	3	4	5

image					
When it comes to the products I buy I have often broken customs and rules	1	2	3	4	5
Often violated the understood rules of my social group regarding what to buy	1	2	3	4	5
Often gone against the understood rules of my social group regarding how certain products are properly used	1	2	3	4	5
Dislike products or brands that are customarily purchased by everyone	1	2	3	4	5
Once they become popular among the general public I give up wearing fashions I've purchased	1	2	3	4	5
The more commonplace a product or brand is among the general population, the less interested I am in buying it	1	2	3	4	5

Construct: 3M Model: Compound Traits

Question 10

Competitiveness

Measurement Source: Competitiveness Scale (Mowen, 2000).

Need for learning

Measurement Source: Need for Learning Scale (Mowen, 2000).

Altruism

Measurement Source: Altruism Scale (Mowen & Sujan, 2005).

Construct: 3M Model: Situational Traits

Question 10

Interest in cultural experiences

Measurement: Developed for the purpose of this study.

Need for Uniqueness

Measurement Source: Consumer Need for Uniqueness Scale (Tian, Beard & Hunter, 2001).

Fashion Leadership

Measurement: Fashion Leadership Scale (Goldsmith, Freiden & Kilsheimer, 1993).

Construct: 3M Model: Surface Traits

Question 10

Mass traveler

Soft adventure traveler

Hard adventure traveler

Measurement Source: Scores on Traveler type Index

People have different personalities. How often do these characteristics describe how you see yourself in everyday life? *Please circle one for each statement, where 1=Never and 9=Always.*

	Never 1	Always 9
Drawn to experiences with an element of danger	Elemental Trait: Need for Arousal	
Seek an adrenaline rush		
Actively seek out new experiences		
Enjoy taking more risks than others		
Focus on my body and how it feels	Elemental Trait: Physical Resources/Body Needs	
Devote time each day to improving my body		
Work hard to keep my body healthy		
Feel making my body look good is important		
Enjoy cultural immersion when I travel	Situational trait: Interest in cultural experiences	
Seek hands-on cultural encounters as I travel		
Embrace the world celebrate its nuances as I travel		
Interested in the traditions of indigenous cultural communities (e.g., festivals, rituals) as I travel		
Try to visit local museum or art gallery as I travel		
Travel should be about enriching knowledge	Compound trait: Need for learning	
Enjoy learning new things more than most people		
People consider me to be intellectual		
Enjoy working on new ideas		
Value information as the most important resource	Compound trait: Altruism	
Have an altruistic nature		
Give to others		
Sacrifice my goals to help others		
Selfless in giving time to others	Elemental Trait: Need for Material Resources	
Enjoy buying expensive products		
Like to own nice products more than most people		
Acquiring valuable products is important to me	Compound trait: Competitiveness	
Enjoy owning luxurious products		
Enjoy competition more than others		
Feel it is important to outperform others		
Enjoy testing my abilities against others'		
Feel winning is extremely important		

Construct: Fashion Leadership**Question 11**

Source: Fashion Leadership Scale obtained from Goldsmith, Freiden & Kilsheimer, 1993).

The following statements are about your fashion style. Please indicate your level of agreement with each by circling the number that best describes you, where 1=Strongly Disagree and 5=Strongly Agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Aware of fashion trends and want to be one of the first to try them	1	2	3	4	5
First to try new fashion; therefore, many people regard me as being a fashion leader	1	2	3	4	5
Important for me to be a fashion leader	1	2	3	4	5
Confident in my ability to recognize fashion trends	1	2	3	4	5
Clothes are one of the most important ways I have of expressing my individuality	1	2	3	4	5
Don't spend a lot of time on fashion-related activities	1	2	3	4	5

National Geographic
Question 12, 13, 14, 15
Pre trip behavior

Over the past 12 months have you used the following sources when booking or reserving a vacation trip? Please mark ☒ each of the sources used, and if used, circle how helpful you found it.

	Used		Not Helpful	Somewhat Helpful	Very Helpful
	No	Yes			
Hotels.com	☐	☐	1	2	3
Priceline.com	☐	☐	1	2	3
Orbitz.com	☐	☐	1	2	3
Expedia.com	☐	☐	1	2	3
Kayak.com	☐	☐	1	2	3
Travelocity.com	☐	☐	1	2	3
Hotwire.com	☐	☐	1	2	3
Cheaptickets.com	☐	☐	1	2	3
Local or government tourism websites	☐	☐	1	2	3
Hotel websites	☐	☐	1	2	3
Tour operators/Lodges (US/Foreign based)	☐	☐	1	2	3
Travel agents	☐	☐	1	2	3

Other, please describe	
------------------------	--

Over the past 12 months have you used the following sources when booking or reserving a vacation trip? Please mark ☒ each of the sources used, and if used, circle how helpful you found it.

	Used		Not	Somewhat	Very
	No	Yes	Helpful	Helpful	Helpful
Accommodation websites (e.g., hotels.com)	☐	☐	1	2	3
Airline websites	☐	☐	1	2	3
Local or government tourism websites	☐	☐	1	2	3
Stories/blogs from travelers and travel writers	☐	☐	1	2	3
Search engines (e.g., Google, Yahoo)	☐	☐	1	2	3
Travel websites (e.g., Expedia, Lonely Planet)	☐	☐	1	2	3
TV travel shows	☐	☐	1	2	3
Guidebooks	☐	☐	1	2	3
Magazines	☐	☐	1	2	3
Newspapers	☐	☐	1	2	3
Advice/recommendations from friends or family	☐	☐	1	2	3
Travel agents	☐	☐	1	2	3
Tour brochures	☐	☐	1	2	3
Travel trade shows	☐	☐	1	2	3
Other, please describe					

Thinking about your last vacation trip, before going did you do any of the following activities? Please mark ☒ one for each.

Purchased new luggage/gear	☐ yes	☐ no	Read books about the local culture	☐ yes	☐ no
Got into good physical shape	☐ yes	☐ no	Learned some of the local language	☐ yes	☐ no
Purchased travel guide books	☐ yes	☐ no	Watched programs on the local culture	☐ yes	☐ no

National Geographic

Question 15

During trip/ Post trip Behavior

Thinking about your last vacation trip, did you share you travel experiences with friends/family using any of these communication types? Please mark ☒ one for each.

Posting photos on-line <i>during</i> trip	☐ yes	☐ no	Telling stories	☐ yes	☐ no
Posting photos on-line <i>after</i>	☐ yes	☐ no	Blog diary <i>during</i>	☐ yes	☐ no

trip		trip	
Sending postcards by mail	☐ yes ☐ no	Blog diary <i>after</i> trip	☐ yes ☐ no

National Geographic
Question 16
During trip Behavior

Over the past 12 months have you used the following technologies when traveling on a vacation trip? Please mark ☒ each of the sources used, and if used, circle how helpful you found it.

	Used		Not	Somewhat	Very
	No	Yes	Helpful	Helpful	Helpful
Camera/Digital camera	☐	☐	1	2	3
Internet café or wireless areas	☐	☐	1	2	3
Mobile phone	☐	☐	1	2	3
I-Pod/MP3/MP4 player	☐	☐	1	2	3
Laptop computer with wireless access	☐	☐	1	2	3
Global Positioning System (GPS)	☐	☐	1	2	3
Cellular phone with Internet access	☐	☐	1	2	3
Cellular phone with camera	☐	☐	1	2	3
Pager	☐	☐	1	2	3
Personal digital assistant (e.g., Blackberry)	☐	☐	1	2	3
Personal digital assistant with Internet access	☐	☐	1	2	3
Laptop computer	☐	☐	1	2	3
Desktop computer	☐	☐	1	2	3
Global Positioning System (GPS) in vehicle	☐	☐	1	2	3
On Star service in vehicle	☐	☐	1	2	3
Other, please describe					

National Geographic
Question 17
Future intentions

Thinking about the words "Dream it" read the list of travel experiences below. Please indicate the experiences you have dreamed of having by circling 1=Not at all and 5=Absolutely.

I've dreamed of...	Not at all					Absolutely
	1	2	3	4	5	
Bicycling across the USA						

Staying at a hot spring spa in Japan	1	2	3	4	5
Visiting all the seven continents	1	2	3	4	5
Getting off the beaten track	1	2	3	4	5
Surf fishing on the beach at Cape Hatteras	1	2	3	4	5
Camping in Glacier National Park	1	2	3	4	5
Visiting a market in India	1	2	3	4	5
Hiking in rural Ireland	1	2	3	4	5
Shopping in Paris	1	2	3	4	5
Making snow angels in Alaska	1	2	3	4	5
Visiting the Seven Wonders of the World	1	2	3	4	5
Running with the bulls in Spain	1	2	3	4	5
Cage-diving with Great White Sharks	1	2	3	4	5
Rock climbing on every continent	1	2	3	4	5
Swimming in every ocean	1	2	3	4	5
Rafting in the Grand Canyon	1	2	3	4	5
Cliff diving in Jamaica	1	2	3	4	5
Hiking in a rainforest	1	2	3	4	5
Snorkeling the Great Barrier Reef	1	2	3	4	5
Visiting the pyramids in Egypt	1	2	3	4	5
Going on a safari in Africa	1	2	3	4	5
Walking down the ancient paths of China	1	2	3	4	5
Exploring the ancient civilization of Mayans	1	2	3	4	5
Relaxing on the white beaches of Bora-Bora	1	2	3	4	5
Other, please describe					

National Geographic
Question 18
Post trip behavior

Thinking about your last vacation trip, did your travel experience change anything about your lifestyle at home? Please mark ☒ one for each.

A new recreation activity at home	☐ yes	☐ no	Interested in diet and cuisine	☐ yes	☐ no
Attitude changed about cultures/places	☐ yes	☐ no	Interested in healthy habits	☐ yes	☐ no
Donated money to a charity or cause	☐ yes	☐ no	Volunteered time or resources	☐ yes	☐ no
Learned a new language	☐ yes	☐ no	Other, please describe		

Construct: Age Identity
Measurement: Cognitive age
Question 19

Source: Barak, 1987 - Explore the idea of biological age vs. chronological age in a tourism context

Please specify which of these age decades you FEEL you really belong to: preteens, teens, twenties, thirties, forties, fifties, sixties, seventies, or eighties. Please mark ☒ one for each.

	preteens	teens	20s	30s	40s	50s	60s	70s	80s
I FEEL as though I am in my	☐	☐	☐	☐	☐	☐	☐	☐	☐
I LOOK as though I am in my	☐	☐	☐	☐	☐	☐	☐	☐	☐
I DO most things as though I were in my	☐	☐	☐	☐	☐	☐	☐	☐	☐
My recreation and travel INTERESTS are mostly those of a person in his/her	☐	☐	☐	☐	☐	☐	☐	☐	☐

Demographic Questions

Questions 20, 21, 22, 23, 24, 25, 26, 27, 28

Source: Adapted from the US Census

What is your gender? Please mark ☒ one. ☐ female ☐ male

What is your ZIP code? _____ zip

What year were you born? _____ (e.g., 1966)

Counting yourself, how many people are currently living in your household?

_____ Number of adults (18 years and up) _____ Number of children (under 18 years)

What is your current marital status? Please mark ☒ one.

☐ Single ☐ Widowed ☐ Living with significant other
☐ Married ☐ Divorced ☐ Other (please specify)

What is your ethnicity and race? Please mark ☒ one.

☐ White ☐ Hispanic/Latino/Spanish origin ☐ Mixed (please specify)
☐ African American/Black ☐ Hawaiian/other Pacific Islander ☐ Other (please specify)

☐ Asian

☐ American Indian/Alaska
Native

What is your highest level of education? *Please mark ☒ one.*

☐ Some high
school

☐ Some college

☐ College degree, 4 year
college

☐ High school
degree

☐ Associate degree, 2 year
college

☐ Advance degree (e.g., MBA,
MS)

What was your gross household income in 2005? *Please mark ☒ one.*

☐ under \$35,000

☐ \$50,000 -
\$74,999

☐ \$100,000 -
\$149,999

☐ \$200,000 -
\$249,999

☐ \$35,000 -
\$49,999

☐ \$75,000 -
\$99,999

☐ \$150,000 -
\$199,999

☐ \$250,000 or more

Are you currently? *Please mark ☒ one.*

☐ Working full-
time

☐ Going to
school

☐ Retired

☐ Working part-
time

☐ A homemaker

☐ Other, please describe

Appendix H: Expert Review Email Request

Dear Tourism Professor:

As part of my dissertation research I'm developing an "adventure travel index" using Guttman scaling. Guttman scaling is also sometimes known as cumulative scaling or scalogram analysis. The purpose of Guttman scaling is to establish a one-dimensional continuum for a concept you wish to measure, in the case of my research - adventure travel. As a tourism expert, I would like to request your assistance in rating the items in my survey.

I would like to have you rate the attached list of items in terms of how favorable they are to the concept of adventure travel. Based on the recreation, tourism, and adventure travel literature, as well as interviews with an expert panel of recreation, tourism, and adventure industry leaders a large set of destination and activity items were developed. Please rate each of the items in terms of how favorable they are to the concept of adventure travel. Keep in mind, you are not being asked whether you personally agree with the item. Instead, you are being asked to make a judgment about how the item is related to the construct of adventure travel.

If you can fill out and return the survey via email at your earliest convenience (no later than Monday March 26th) it would be greatly appreciated. Simply type your responses directly into the word document, save the file with your last name appended (e.g., Expert Judge Survey-Vogt) and email the file in an attachment back to me at schne252@msu.edu. If you have any problems reading or filling out the survey let me know and I can provide you with a fax number to print and fax the survey. If you have any questions or comments, please do not hesitate to email or call (419) 215-7532. Thank you in advance for your time!

Best regards,

Paige P. Schneider, PhD Candidate
Michigan State University
Tel. (419) 215-7532-cell/voicemail
Skype: paigepatrice
email: schne252@msu.edu

Appendix I: Expert Judge Survey

1. Please review the list of destinations provided and indicate the category you think the image of the destination represents; 1. Mass Tourism, 2. Soft Adventure Tourism, or 3. Hard Adventure Tourism. Some destinations may fit in several categories, however, please choose one category you feel fits the image of the destination best. *Please check only one for each.*

Destination	Mass Tourism	Soft Adventure Tourism	Hard Adventure Tourism
Africa	☐	☐	☐
Antarctica	☐	☐	☐
Arctic	☐	☐	☐
Australia	☐	☐	☐
Caribbean (e.g., Aruba, Cuba, Dominican Republic, Jamaica)	☐	☐	☐
Central America (e.g., Belize, Costa Rica, Guatemala, Honduras)	☐	☐	☐
Central Europe (e.g., Austria, Czech Republic, Poland)	☐	☐	☐
Eastern Europe (e.g., Russian Federation, Ukraine)	☐	☐	☐
Mexico	☐	☐	☐
Middle East (e.g., Israel, Jordan, Pakistan, Turkey)	☐	☐	☐
New Zealand	☐	☐	☐
North America (Canada or U.S.)	☐	☐	☐
North Asia (e.g., China, Hong Kong, Japan, Korea)	☐	☐	☐
South America (e.g., Argentina, Brazil, Chile, Ecuador)	☐	☐	☐
South Pacific (e.g., Fiji, Samoa, Tahiti)	☐	☐	☐
South and Southeast Asia (e.g., Cambodia, India, Malaysia)	☐	☐	☐
Western Europe (e.g., France, Germany, Italy, United Kingdom)	☐	☐	☐

1. Please review the list of activities provided and indicate the category you think the image of the activity represents; 1. Mass Tourism, 2. Soft Adventure Tourism, or 3. Hard Adventure Tourism. Some activities may fit in several categories, however, please choose one category you feel fits the image of the activity best. *Please check only one for each.*

Activity	Mass Tourism	Soft Adventure Tourism	Hard Adventure Tourism
Attending concert/play/dance	☐	☐	☐
Attending local festivals/fairs	☐	☐	☐

Attending spectator sporting events	☐	☐	☐
Backpacking	☐	☐	☐
Bicycle riding	☐	☐	☐
Boating	☐	☐	☐
Camping	☐	☐	☐
Cave exploring/spelunking	☐	☐	☐
City tours/short guided excursions	☐	☐	☐
Climbing - mountain/rock/ice	☐	☐	☐
Dining	☐	☐	☐
Getting to know local people	☐	☐	☐
Golfing/tennis	☐	☐	☐
Hiking	☐	☐	☐
Hunting/fishing	☐	☐	☐
Activity (cont.)	Mass Tourism	Soft Adventure Tourism	Hard Adventure Tourism
Kayaking/canoeing	☐	☐	☐
Mountain biking	☐	☐	☐
Night life/visiting night clubs/dancing	☐	☐	☐
Observing wildlife/bird watching	☐	☐	☐
Safaris	☐	☐	☐
Scenic driving	☐	☐	☐
Scuba diving/surfing	☐	☐	☐
Shopping	☐	☐	☐
Skiing/snowmobiling	☐	☐	☐
Swimming/sunbathing/beach activities	☐	☐	☐
Trekking	☐	☐	☐
Visiting casinos/gambling/gaming	☐	☐	☐
Visiting friends or relatives	☐	☐	☐
Visiting gardens/botanical gardens	☐	☐	☐
Visiting local/state/national parks	☐	☐	☐
Visiting museums/galleries	☐	☐	☐
Visiting places of historical interest	☐	☐	☐
Visiting spas	☐	☐	☐
Visiting theme/amusement parks	☐	☐	☐
Visiting zoos	☐	☐	☐
Volunteering while on vacation	☐	☐	☐
Waterskiing/snorkeling	☐	☐	☐

2. In your own words please define the following:

a. Mass Tourism
b. Soft Adventure Tourism
c. Hard Adventure Tourism

Thank you for your time!

Appendix J: Expert Judge Definitions

Expert Judge Definitions for Mass Tourism

Expert Judge	Mass Tourism Definition
Judge #1	I used number of people, physical challenge, risk, and exoticness as a definition: Mass tourism has large numbers of participants; is not physically challenging; "common" destination or activity; and very secure and safe.
Judge #2	Tourism that is do-able by the majority of the population, which does not require any special skills or instructions to accomplish successfully.
Judge #3	No risk associated activities, easy to access.
Judge #4	Staying in a familiar bubble while away... emphasis on comfort, convenience, mainstream activities... focus on well known destinations, settings, and experiences.
Judge #5	Organized; structured; packaged; large numbers of tourists, often in large groups; based upon and the cause of large scale development; significant potential for negative impact (particularly socio-cultural and environmental).
Judge #6	Leisure travel to destinations that have infrastructure capable of hosting large numbers of people; usually characterized by tours, attractions, or routes that are separate from the activities of local communities, and by accommodations that emphasize familiar physical and social comforts.
Judge #7	Large percent of market (over 50%); No or little skill needed; "Sightseeing."

Expert Judge Definitions for Soft Adventure Tourism

Expert Judge	Soft Adventure Tourism Definition
Judge #1	I used number of people, physical challenge, risk, and exoticness as a definition: Soft adventure tourism has a moderate number of participants; some level of physical challenge; less common destination or activity; and moderate risk.
Judge #2	Tourism activities that require instruction, a level of skill, but are generally guided with experts who assume the primary responsibilities for services, organization, equipment, and logistics, and generally take care of overall plans. It requires a low-level of experience and high level enthusiasm for roughing it somewhat and being taken out of their comfort zone.
Judge #3	Some type of difficulty in engaging in activities during trip, fairly easy to access.
Judge #4	Getting out of the bubble on occasion... pursuing activities outside the norm that involve a limited amount of risk... could be pursued in a range of destinations.
Judge #5	something beyond generic nature-based tourism; outdoors and physically active but not as demanding or extreme as hard AT; could be individually organized or smaller packaged groups; for someone looking for something different and somewhat off the beaten path (in terms of activities and destinations) but not the challenge of true hard AT (i.e., lower effort and risk than hard AT, a 'tamer' version).
Judge #6	Recreation travel to remote or exotic destinations, where some aspects of the natural, social, or cultural environments may be unfamiliar for the traveler; usually characterized by a combination of familiar comforts and unfamiliar challenges, from a physical or social perspective.
Judge #7	Outdoor recreation

Expert Judge Definitions for Hard Adventure Tourism

Expert Judge	Hard Adventure Tourism Definition
Judge #1	I used number of people, physical challenge, risk, and exoticness as a definition: Hard adventure tourism has few participants; very physically challenging; an “exotic” destination or activity; and high risk.
Judge #2	Tourism activities that require a high level of skill, self reliance, and expertise in the area to be traveled. May be guided, however the expectation is that each participant will bring a high level of skill and expertise to the activity or trip. Extreme travel, environmental, and socio-cultural conditions can be expected as part of the experience.
Judge #3	A lot of difficulty and risk associated with these types of activities.
Judge #4	Avoiding the bubble completely... engaging in physically/mentally demanding activities... in relatively non-mainstream/less traveled destination.
Judge #5	‘Extreme’ destinations and activities; physically demanding and challenging; remote and pristine settings; low numbers and very small groups; associated with exploration, technical skills, effort, a degree of risk; has the <i>potential</i> to minimize negative environmental impacts and maximize economic and socio-cultural benefits, but not necessarily (dependent upon the types of activities engaged in and the carrying capacity of the environment, the latter of which is often low due to the nature of the setting).
Judge #6	Recreation travel to remote or exotic destinations, where the natural, social, or cultural environments are unfamiliar or extraordinary for the traveler; usually characterized by activities that may be challenging from a physical or social perspective.
Judge #7	Skills needed; Risk involved; Specialized; Extreme “scenery” – mountains, oceans, fast running rivers; Hard to reach location/places

Appendix K: Other Recreation and Travel Activities Experienced

Respondents Other Recreation and Travel Activities Experienced

Question 7 in the survey presented respondents with a list of recreation and travel activities they had experienced in the past. Space was provided for “other” recreation and travel activities not included in the list. Other recreation and travel activities respondents participated in were:

- mountain running
- photography
- skydiving/BASE jumping
- skydiving
- ballooning
- sailboat/cruising
- horseback riding
- attend tradeshow/conferences
- photography
- sailing
- rafting
- off road - 4 wheeling
- photography
- curling
- religious sites
- parasailing

Appendix L: Other Recreation and Travel Activities Intentions

Respondents Other Recreation and Travel Activities Intentions

Question 7 in the survey presented respondents with a list of recreation and travel activities they plan to experience in during their lifetime. Space was provided for “other” recreation and travel activities not included in the list. Other recreation and travel activities respondents intend to participate in during their lifetime were:

- mountain running
- photography
- research trips
- hanggliding
- sailboat/cruising
- horseback riding
- rafting
- attend tradeshow/conferences
- photography
- sailing
- religious ceremonies
- wine tours
- sailing
- cooking classes
- rafting
- off road - 4 wheeling
- rafting
- horseback riding
- curling
- archeology
- religious sites
- educational tour/seminar
- white water rafting/solar eclipse watching
- scenic flights

Appendix M: Other Lifestyle Changes Experienced After Last Vacation

Other Lifestyle Changes Experienced After Last Vacation

Question 18 in the survey presented respondents with a list of lifestyle changes. Respondents indicated lifestyle changes they incorporated at home after their last vacation travel experience. Space was provided for “other” lifestyle changes not included in the list. Other recreation and lifestyle changes respondents indicated they experienced were:

- interest in countries news and politics
- appreciation for warm water habitats
- using less resources (toilet paper, water, energy)
- meditation
- being more environmental
- helped local orphanages
- interest in regional economy and history and culture

Appendix N: Other Technologies Used on Vacation

Respondents Other Technologies Used on Vacation in the Previous 12 months

Question 16 in the survey presented respondents with a list of technologies used while travelling on vacation in the previous 12 months. Space was provided for “other” technologies used by respondents when traveling on a vacation trip during the previous 12 months were:

- mobile phone TV and GPS
- portable DVD player and noise reduction headphones
- road atlas
- video camera
- while note technology, used local guide - very helpful

Appendix O: Descriptive Statistics Elemental Traits and Items

Table 62

Descriptive Statistics for Eight Elemental Traits Items

Elemental Traits and Items	Hard Adventure Traveler			Soft Adventure Traveler			Total			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Introversion	202	3.83 ¹	1.61	115	4.09	1.66	317	3.92	1.63	-1.38	.781
Quiet	201	4.59	1.75	114	4.78	2.06	315	4.66	1.87	-0.86	.047
Introverted	201	3.68	1.99	112	3.97	2.15	313	3.79	2.05	-1.21	.486
Bashful	201	3.46	1.79	114	3.64	1.87	315	3.52	1.82	-0.86	.502
Shy	201	3.59	1.93	114	3.93	1.95	315	3.71	1.94	-1.51	.777
Conscientiousness	202	6.75	1.37	115	6.51	1.42	317	6.67	1.39	1.47	.949
Precise	202	6.37	1.71	114	5.95	1.89	316	6.22	1.79	2.03	.215
Efficient	202	6.90	1.48	114	6.67	1.59	316	6.81	1.52	1.29	.270
Organized	202	6.91	1.56	115	6.71	1.58	317	6.84	1.57	1.08	.842
Orderly	201	6.67	1.67	114	6.52	1.60	315	6.61	1.64	0.77	.460
Openness to Experience	202	6.92	1.38	114	6.38	1.41	316	6.72	1.41	3.27	.757
Creative	202	6.86	1.70	114	6.16	1.71	316	6.61	1.73	3.53	.642
Imaginative	202	7.04	1.64	113	6.51	1.71	315	6.85	1.68	2.69	.148
Find novel solutions	201	7.07	1.50	113	6.48	1.54	314	6.86	1.54	3.33	.595
Original	202	6.69	1.450	112	6.38	1.58	314	6.58	1.53	1.77	.310
Agreeability	202	6.96	1.19	115	6.99	1.17	317	6.97	1.18	-0.20	.517
Tender hearted	201	6.93	1.70	114	7.06	1.60	315	6.97	1.66	-0.70	.370
Agreeable	202	6.96	1.28	114	6.96	1.29	316	6.96	1.28	-0.00	.507
Softhearted	201	6.55	1.63	113	6.68	1.61	314	6.60	1.62	-0.68	.304
Kind	202	7.41	1.25	111	7.28	1.41	313	7.36	1.31	0.85	.555
Neuroticism	202	4.07	1.53	114	4.15	1.49	316	4.10	1.51	0.41	.663
Moody	200	4.22	1.95	112	4.18	2.08	312	4.21	1.99	0.18	.638
Temperamental	202	3.73	1.92	114	3.84	1.79	316	3.77	1.87	-0.50	.069
Emotional	201	4.74	2.02	114	4.73	1.87	315	4.74	1.96	0.06	.255
Touchy	201	3.60	1.74	113	3.83	1.87	314	3.68	1.79	-1.12	.395
Need for Arousal	203	6.06	1.63	114	5.01	1.72	317	5.68	1.74	5.38	.276
Actively seek out new experiences	203	7.15	1.44	113	6.16	1.81	316	6.79	1.65	5.31	.002
Drawn to experiences with an element of danger	203	5.75	2.02	114	4.75	1.99	317	5.39	2.07	4.28	.784
Seek an adrenaline rush	203	5.39	2.14	114	4.28	2.06	317	4.99	2.18	4.50	.746
Enjoy taking more risks than others	203	5.95	1.94	114	4.89	2.13	318	5.57	2.07	4.47	.141

Table 62 *Continued*

Physical/Body Needs	203	6.05	1.65	114	5.69	1.70	317	5.92	1.67	1.84	.669
Focus on my body and how it feels	202	6.14	1.85	114	5.69	1.92	316	5.98	1.89	2.03	.553
Devote time each day to improving my body	203	5.99	1.98	114	5.55	1.93	317	5.83	1.97	1.90	.734
Work hard to keep my body healthy	203	6.23	2.00	114	5.81	1.99	317	6.08	2.00	1.80	.873
Feel making my body look good is important	203	5.84	1.84	114	5.71	2.02	317	5.79	1.90	0.57	.234
Material Needs	203	3.74	1.85	114	3.82	1.78	317	3.77	1.82	-0.36	.520
Enjoy buying expensive Products	203	4.25	2.34	114	4.16	2.04	317	4.22	2.24	0.36	.020
Like to own nice products more than most people	203	3.92	2.13	114	4.01	1.98	317	3.95	2.07	-0.38	.154
Acquiring valuable products is important to me	203	3.31	1.87	114	3.37	1.93	317	3.33	1.89	-0.28	.577
Enjoy owning luxurious products	203	3.50	2.13	114	3.75	2.05	317	3.59	2.10	-1.01	.478

¹Based on a nine-point scale where respondents indicated how often the characteristic describes how they see themselves in everyday life, 1 = *never* and 9 = *always*.

Appendix P: Descriptive Statistics Compound Traits and Items

Table 63

Descriptive Statistics for Compound Traits and Items

Compound Traits and Items	Hard Adventure Traveler			Soft Adventure Traveler			Total			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Competitiveness	203	4.74 ¹	2.07	114	4.32	2.22	317	4.59	2.13	1.67	.096
Enjoy competition more than others	203	5.06	2.25	114	4.63	2.32	317	4.91	2.28	1.62	.365
Feel it is important to outperform others	202	4.44	2.26	114	4.15	2.32	316	4.33	2.28	1.07	.543
Enjoy testing my abilities against others'	203	5.24	2.31	114	4.62	2.46	317	5.02	2.38	2.22	.191
Feel winning is extremely Important	203	4.22	2.31	114	3.89	2.48	317	4.10	2.38	1.18	.182
Altruism	203	6.27	1.39	114	6.05	1.35	317	6.19	1.38	1.37	.438
Have an altruistic nature	199	6.31	1.72	114	6.09	1.93	313	6.23	1.80	1.06	.429
Give to others	203	6.74	1.51	113	6.67	1.48	316	6.72	1.49	0.38	.149
Sacrifice my goals to help Others	203	6.07	1.67	114	5.68	1.55	317	5.93	1.63	2.02	.365
Selfless in giving time to others	201	5.94	1.79	113	5.76	1.68	314	5.87	1.75	0.85	.473
Need for Learning	203	7.07	1.17	114	6.68	1.68	317	6.93	1.39	2.41	.050
Enjoy learning new things more than most people	203	7.29	1.39	114	6.81	1.68	317	7.11	1.52	2.73	.034
People consider me to be Intellectual	202	6.81	1.56	114	6.64	4.97	316	6.75	3.23	0.44	.042
Enjoy working on new ideas	203	7.20	1.39	114	6.62	1.59	317	6.99	1.49	3.38	.149
Value information as the most important resource	203	6.97	1.52	114	6.65	1.50	317	6.85	1.52	-1.79	.616

¹Based on a nine-point scale where respondents indicated how often the characteristic describes how they see themselves in everyday life, 1 = *never* and 9 = *always*

Appendix Q: Descriptive Statistics Situational Traits and Items

Table 64

Descriptive Statistics Interest in Cultural Experiences

Situational Traits and Items	Hard Adventure Traveler			Soft Adventure Traveler			Total			<i>t</i>	<i>Sig.</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Interest in Cultural Experiences ¹	203	7.05	1.32	114	6.31	1.54	317	6.79	1.44	4.50	.121
Try to visit local museum or art gallery as I travel	203	6.85	1.71	114	6.35	2.06	317	6.67	1.85	2.33	.013
Enjoy cultural immersion when I travel	203	7.17	1.58	113	6.30	1.89	316	6.86	1.74	4.38	.027
Seek hands-on cultural encounters as I travel	202	6.92	1.80	113	5.95	2.06	315	6.57	1.95	4.34	.102
Embrace the world celebrate its nuances as I travel	203	6.90	1.75	114	6.07	1.84	317	6.60	1.82	3.96	.471
Interested in traditions of indigenous cultural communities (festivals, rituals) as I travel	203	7.12	1.64	114	6.30	1.89	317	6.82	1.78	4.03	.129
Travel should be about enriching knowledge	203	7.37	1.52	114	6.92	1.72	317	7.21	1.61	2.43	.441

¹Based on a nine-point scale where respondents indicated how often the characteristic describes how they see themselves in everyday life, 1 = *never* and 9 = *always*.

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